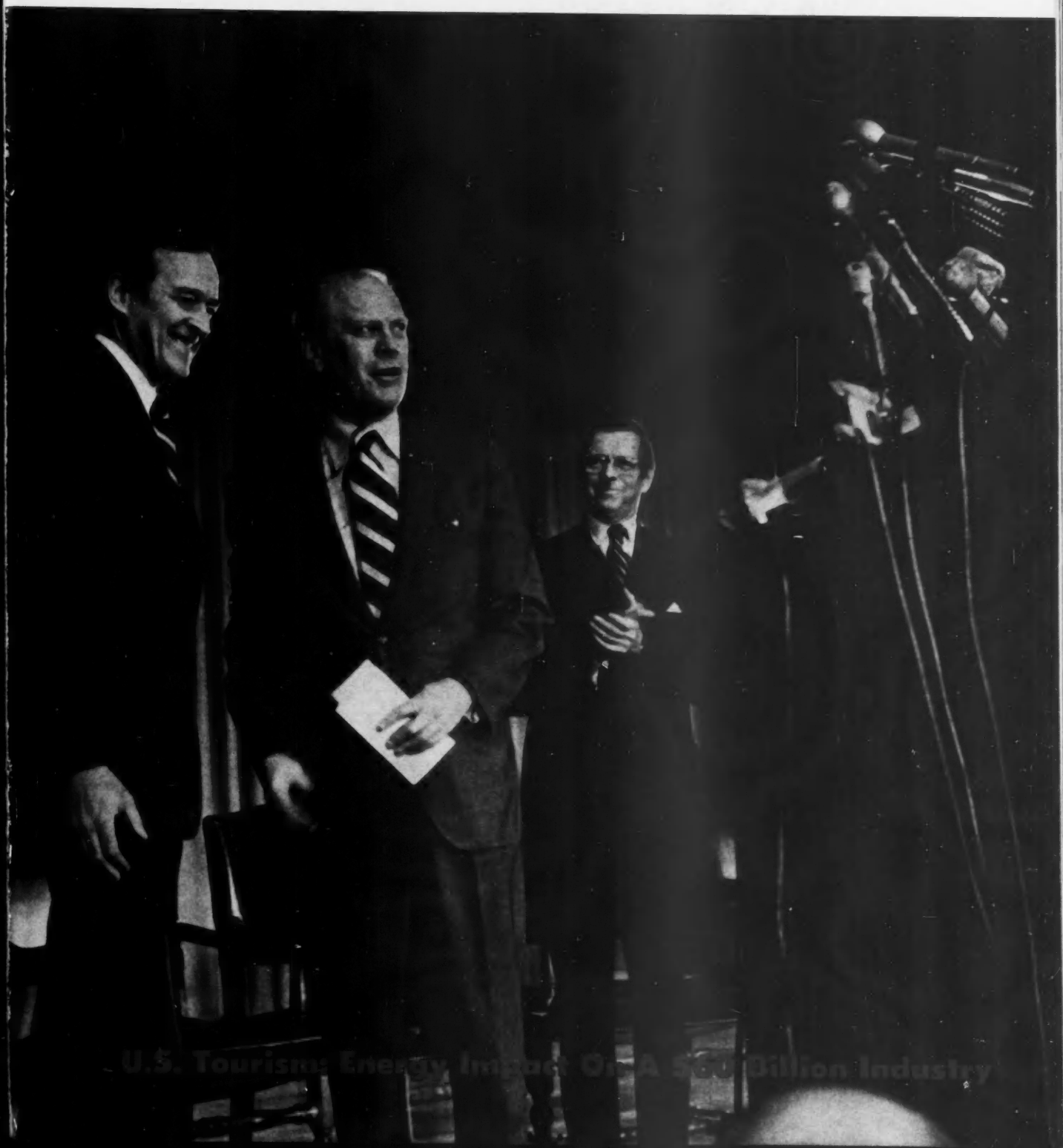
FEBRUARY 4, 1974

Commerce Today



U.S. Tourism: Energy Impact Of A $60 Billion Industry

FROM THE SECRETARY

Maintain Our Export Momentum

Never before in the history of the United States has there been such an urgent need for business to increase exports. And never before has American business had such a dramatic new base on which to build export expansion.

The reason we need more export sales income is to offset the mounting costs of imported oil and to maintain the strength of the dollar. The world price of oil has quadrupled in recent months. We are hopeful that the oil-producing nations may roll these prices back to reasonable levels, but the price is virtually certain to remain higher than it was before.

The base on which to build further export expansion is the outstanding U.S. export performance of last year. Our exports increased 44 percent over 1972, hitting a record figure of $70.8 billion. Our trade balance of $1.7 billion was in the black for the first time since 1970. The figure represents a dramatic turnabout in the trade balance from 1972, when imports had outdistanced exports by more than $6 billion, a record.

Several factors account for this spectacular performance:

1. President Nixon's action in realigning the value of the dollar, which has allowed American business to compete in the world market without the drag of an overvalued currency.

2. The growing consumerism in Europe and Japan, where our high quality and attractively designed U.S. products are becoming increasingly appreciated.

3. The growing awareness of American business of the overseas market as a highly profitable, year-in-and-year-out proposition, and not just a sideline to consider when demand slackens in the domestic market.

4. The economic boom in our major markets, stimulating sales of U.S. machinery and industrial materials.

5. Tremendous demand for our agricultural products, reflecting the comparative advantage of the productivity of U.S. farmers.

Last year, the combination of these factors literally catapulted many U.S. exporters back into the center of foreign markets in which for years their products had been unable to compete. They now have a firm base from which to expand their overseas sales operations. They are familiar with the specialized needs of those markets. They have established warehousing and marketing operations. They have mastered the language barrier. In short, they are in the break-out position.

Many of these exporters used services offered by the Commerce Department to assist them in overseas undertakings. President Nixon has directed our Department to lead a combined effort on the part of Federal departments and private firms to expand exports. To accomplish this, he established the President's Export Council, with 22 members from the private sector as well as his Interagency Committee on Export Expansion with representation from 13 Government departments and agencies. Additionally the Department, through its 43 field offices nationwide is encouraging 11,000 companies which have never been involved in export to exhibit in a trade fair, undertake a trade mission, hire a sales agent abroad, or otherwise begin to export.

So the foundation has been laid for the greatest export expansion drive in history. Let's join together, business and government, to respond to changing times, changed needs and changed opportunities.

Frederick B. Dent

Commerce Today

Vol. IV, No. 9, February 4, 1974

2 Economic Highlights

New GNP figures show that a general slowing of U.S. economy is occurring, following an extended period of rising output. Inflation, energy shortages make 1974 forecasts difficult now, but policies have been set for a successful recovery.

4 Nation's Energy Problems Assessed By Administration Leaders For Executive Group

Members of the American Society of Association Executives are briefed at the White House on the dimensions of the nation's energy problems.

8 Travel Industry Told It Merits Fair Energy Share

A conference of State travel directors organized by the U.S. Travel Service was assured that tourism needs will be proportionately considered along with those of other industries in the allocation of energy sources.

11 New President's Export Council Gets Challenge To Sustain Sales Drive Abroad

Formation session is held at White House for nationwide group of top industry executives led by Fletcher Byrom of Koppers.

13 New GATT Textiles Arrangement Aims At Orderly Trade Expansion

International rules aimed at bringing sustained but orderly expansion in world textile trade culminate two years of study within the General Agreement on Tariffs and Trade.

15 Seabed Sovereignty Answers Could Spur Mineral Hunt In Unexploited Ocean Beds

Third United Nations Conference on the Law of the Sea will tackle knotty questions at its 10-week session in Caracas beginning in June. Commerce is among nearly a dozen U.S. departments and agencies participating.

19 Domestic Business Report

Long-term national minority business education program urged—Industry highlights: petrochemicals face chain of supply shortages—Energy problems of small business get attention—Food retailers develop energy thrift methods—Petroleum export licensing system covers four items—Maritime helps ships with fuel problems—Computerized monitoring system to save energy for new containership—Ferrous scrap export quotas set for first quarter.

31 International Commerce Report

Quarterly World Market Report—Reports on three trade missions—Successful shows in Bangkok, Frankfurt, Mexico City—Trends in Costa Rica, Bolivia, Nicaragua, Somalio—World Trade with USSR, Eastern Europe—Schedule of upcoming Commerce overseas promotions.

COVER: *Vice President Gerald R. Ford, flanked in this photo by Secretary of Commerce Frederick B. Dent and Assistant Secretary of Commerce C. Langhorne Washburn, spoke to a recent Washington conference of State travel and tourism promotion directors, hosted by the Commerce Department's U.S. Travel Service. The subject was energy allocations for the $60 billion domestic tourism industry. Story on Page 8.*

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Published biweekly by the U.S. Department of Commerce, Washington, D.C.
Annual subscription rate $42.40 ($10.60 additional for foreign mailing, $14.30 additional for domestic air mailing). Single copy $1.65. Make checks or money orders payable to Superintendent of Documents and mail to Superintendent, U.S. Government Printing Office, Washington, D.C. 20402, or to any U.S. Department of Commerce Field Office.

All subscription inquiries and address changes should be sent to the Superintendent of Documents, at the above address. This is the central distribution agency for U.S. Government publications.
Microfiche copy available at 95 cents per issue from National Technical Information Service, Springfield, Virginia, 22151.
Other inquiries should be sent to the U.S. Department of Commerce, 14th Street and Constitution Avenue, Washington, D.C., 20230.

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Pace Of Economy Slows; Inflation Continues

Economic Highlights is prepared by Dr. Sidney L. Jones, Assistant Secretary of Commerce for Economic Affairs.

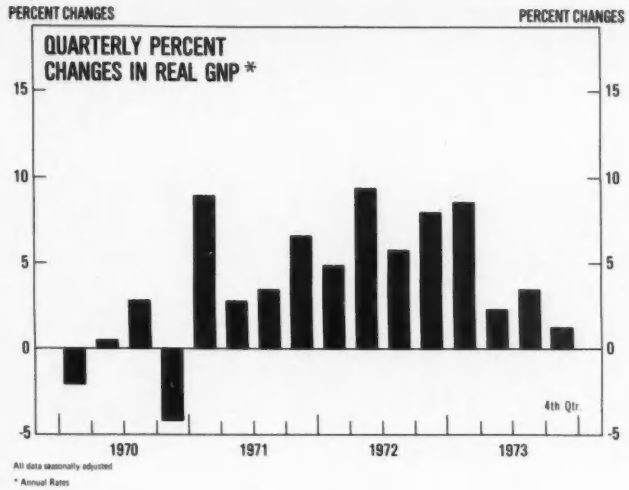
The preliminary gross national product figures for the last quarter of 1973 confirm that a general slowing of the U.S. economy is occurring following an extended period of rising output. While this slowdown is clearly accentuated by energy shortages there are also other significant factors. Unfortunately, the pace of inflation continued to accelerate at yearend 1973. The combination of unacceptable inflation and distortions caused by energy problems and other serious shortages makes economic forecasting for the coming year unusually difficult, but economic policies have been set to contribute to a successful recovery.

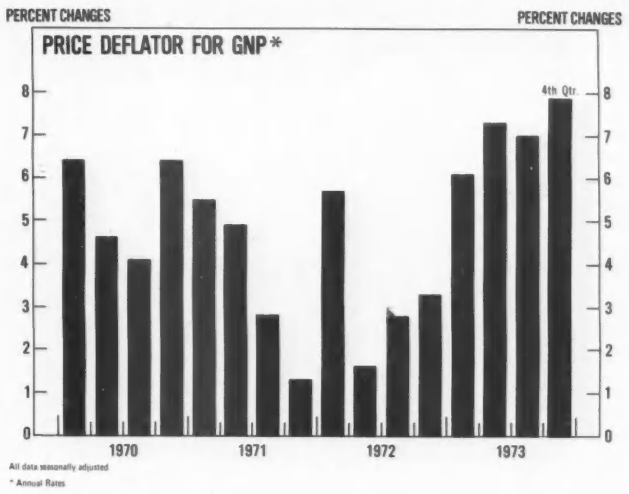
During the fourth quarter of 1973 GNP increased $29.5 billion to a seasonally adjusted annual rate of $1,334.0 billion. However, when the effects of inflation are considered, real output increased only 1.3 percent—well below the long-term goal of 4 percent gains. Over the past twelve quarters "real" GNP has increased at an average rate of 5.5 percent but over the last three quarters of 1973 the average gain was only 2.4 percent. Despite this general slowdown the pace of inflation—as measured by the implicit GNP price deflator—jumped to 7.9 percent during the last quarter and the outlook for prices remains unfavorable, particularly during the first half of the year. It now appears that 1974 will be a year of moderate economic growth with almost all of the expansion occurring in the second half following a first half of sluggish—or even negative—changes in real output.

For the entire year 1973 the current-dollar GNP increased to $1,288.2 billion, up from $1,155.2 billion in 1972 and $1,055.5 billion in 1971. Real GNP recorded another strong overall gain of $46.6 billion or 5.9 percent (which is only slightly below the 6.1 percent increase of 1972) despite the undesirable jump in the GNP price deflator to 5.3 percent (the 1972 increase in the deflator was 3.2 percent).

The two major categories of weakness during the last quarter were residential construction and automobile sales. Housing starts had been expected to decline from the record 2.4 million annual rate reported in 1972 as prices and mortgage interest rates increased. For all of 1973 conventional housing starts totaled a relatively strong 2,041,600 units, but the fourth quarter rate was down to 1,566,000 units and in December the seasonally adjusted annual rate slumped to 1,355,000 units. The renewed flow of savings into mortgage-oriented financial institutions should stimulate housing sales in the near term but general consumer uncertainties and specific concerns about the energy outlook will have to be overcome.

A sharp decline in the sale of automobiles also occurred last quarter. Uncertainties about the outlook for the price and availability of gasoline certainly aggravated the situation, though it should be noted that prospects for automobiles were declining even before the energy problem became acute. The demand for smaller cars has in-



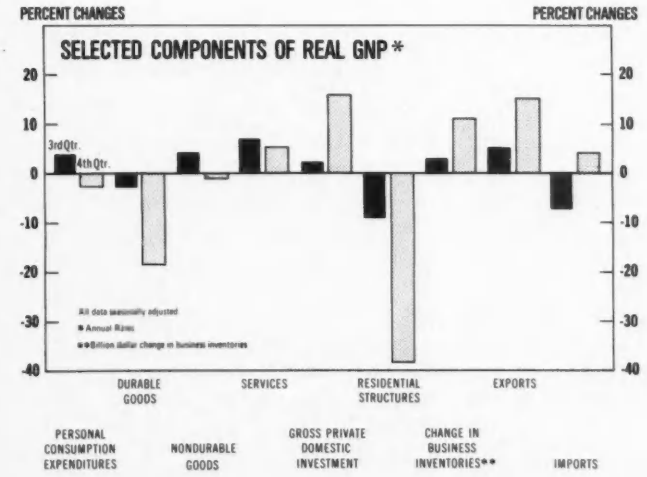


creased in view of the fuel shortages and rising prices for gasoline, but it is impossible to accurately predict the future consequences for consumer interest in more economical cars.

Although the weaknesses in residential housing and automobile sales have been most obvious, the entire personal consumption sector has also been sluggish for several months if the impact of inflation is eliminated from the sales totals. In real terms, sales of durable goods were off $5.7 billion and consumption of nondurable goods declined $600 million last quarter reflecting reduced gasoline and fuel consumption and some apparent consumer resistance to rising food prices. Consumers evidently did not shift their spending from automobile-related expenditures into other goods, as the savings rate jumped from 5.7 to 6.9 percent during the fourth quarter. The outlook for consumer spending remains a major uncertainty in projecting the performance of the economy during the next few months.

Real output gains recorded in the last quarter of 1973 were concentrated in gross private domestic investment, which included strong gains in inventory accumulations plus high level outlays for business plant and equipment and nonresidential construction. Exports continued to rise although the trade surplus was moderated by rising imports and international financial developments. All of these sectors are expected to continue advancing throughout 1974 and should provide a substantial base for increased output later in the year.

Perhaps the greatest unknown involves the management of the Nation's energy difficulties. There is no easy procedure for calculating the effects of energy shortages last quarter or into the future. We estimate that the reported real growth rate may have been 1 percent below what it otherwise would have been. In the coming months we face questions about how the fuel conservation efforts will work out, the demand adjustments triggered by rising prices, the appearance of substitute sources and the possible resumption of oil imports from the oil producer nations.



Commerce Today
Vol. IV, No. 9
February 4, 1974

Associations To Spread Energy Message After Top-Level Briefing

Marshalling public support in the drive to overcome America's energy problems, Administration leaders recently put the following dimensions upon the situation as they briefed a group that has links to every part of the U.S. economy:

► From the Federal Energy Office: energy-independence has top priority today, because U.S. reliance on outside sources "is not only intolerable to the U.S., it is intolerable to the world."

► From the Commerce Department: conservation of energy is an area in which the business community can effectively lead a response from the entire public.

► From the Interior Department: there are no quick ways to increase energy supplies domestically; time and adjustments are needed.

► From the Atomic Energy Commission: nuclear power can provide 20 percent of electric power generating needs by 1980, and 50-60 percent by 2000. Also on the way are solar, geothermal and nuclear fusion (as opposed to nuclear fission) energy resources.

► From the Treasury Department: oil prices will have to recede, directly or indirectly, in the face of world monetary realities.

► From the Transportation Department: urban mass transportation and the nation's railroads have urgent new priorities.

► From the State Department: attitudes in the Middle East have changed as a result of the recent conflict; armed force is not seen now as a means of solutions.

This many-sided assessment of the energy crunch came at a White House briefing for members of the American Society of Association Executives (ASAE), an organization regarded as a strong conduit to the entire U.S. public.

"What we have to do is make sure that we are never in this kind of position again," John C. Sawhill, Deputy Administrator of the Federal Energy Office, told the group in defining the need for the U.S. to become energy-independent.

"It is not only intolerable to the U. S.," Sawhill asserted, "It is intolerable for the world." He said that recent oil price increases could effectively wipe out the foreign aid program for the lesser developed countries and throw the Western European countries into havoc.

Sawhill, four Cabinet members and two other high-ranking government officials fielded energy-related questions from ASAE members. The trade association representatives, invited to the White House from throughout the country, delved into the realities of the shortage, long and short-term solutions and what government and business can do to cushion the short-term blows to specific segments of the economy.

Secretary of Commerce Frederick B. Dent, the speaker with one short-term answer—conservation—urged the trade associations to keep hammering on that message because "if we don't get conservation within business we simply are not going to be able to achieve it."

Secretary Dent noted that the business sector consumes 70 percent of the energy used in the United States, adding that there is a substantial quantity of energy

GROUP GETS FACTS—*Audience enthusiasm, left, reflects one association representative's statement "it was one of the most successful dialogues between industry and government I've ever seen." At right, John C. Sawhill, Deputy Administrator of the Federal Energy Office, asks for support commitments from the ASAE members. He was one of a federal panel.*

available to be saved in business and industry—15 to 20 percent and possibly more.

American companies were strongly urged by Secretary Dent to document what they are doing to conserve the fuels allocated to them. He said:

"In the first place, the public has a right to know whether those who are receiving first call on available energy supplies are using those allocations with maximum efficiency and a minimum of waste. Secondly, the government must be assured that this is being done.

"Let me remind you that the mandatory allocation regulations require a certified statement that companies have an energy conservation program in effect. If fuel shortages worsen, the government might be compelled to require proof beyond pledges of conservation, proof as a justification for future allocations."

"There is no instant energy," Secretary of Interior Rogers C. B. Morton told the group. "We have no way of changing the basic input of domestic sources instantly or even within a single year. It will take a while and will require some adjustments."

Secretary Morton, whose Department is charged with expanding the energy supply base, including getting the right-of-way for the Alaska pipeline, offshore oil, development of oil shale and coal resources, said development of the nation's fossil resources while other "sophisticated" energy sources are being developed will "put us in good shape well before the turn of the century."

"If we can achieve some progress in mining technology, to improve the conditions both from a safety and environmental point of view underground," Secretary Morton continued, "the opportunity for the coal industry today as a domestic base industry is fantastic."

Hopes were stirred

Dr. Dixy Lee Ray, Chairman of the Atomic Energy Commission, also stirred the hopes of the group with reviews of research and development plans to expand energy sources to make the United States self-sufficient.

Dr. Ray said atomic power will take care of 20 percent of the country's electrical power needs by 1980 and between 50 and 60 percent of the total electric energy supply by the end of the century. Before the close of the century, she said, a successful nuclear breeder, the second generation of fission reactors, will take over from the current nuclear plants. And, further into the future, she viewed exploration of solar and geothermal sources, and beyond that, the hope of nuclear fusion. Fusion, the dream fuel of the next century, involves learning how to bottle the sun, to understand those processes that keep the stars moving and create energy and to be able to do that in a compact, controlled way here on earth.

Secretary of Treasury George P. Shultz, fresh from talks with world finance ministers in Rome, said oil prices "simply can't hold."

"We need to maintain a sense of balance and something like the structure we have while two things happen," Shultz urged.

One, "something will have to give and it will have to be in one way or another, directly or indirectly, the price," the Treasury Secretary stated.

"The current prices are not payable by many countries," he pointed out. "In the case of many countries the amount of extra oil is the equivalent of a country's total aid received, the equivalent of a country's total reserves. They simply don't have the money to pay the price."

Shultz's second point was: "We need to see how this money that is generated expresses itself in a form of flows of investment because cer-

tainly those who have the money don't want to just sit on it. . . .

"They want to invest it with some rate of return, put it back into the stream of balance of payments and it will go somewhere into the investment account of various countries and thereby the world accounts will come into balance."

Secretary of Transportation Claude S. Brinegar said "we have addressed ourselves to the question of what to do about urban transportation quickly because the alternative, the private auto, is in fact our biggest single fuel user."

The Department of Transportation has two long term urban transportation programs which make a total of $2 billion a year available for urban transit and an expanded version of this program will be announced shortly, the Transportation Secretary said. He added that his department is also working to increase the efficiency and effectiveness of the overall operation of the U.S. railway system because "there is no better way to move large amounts of freight long distances than by rail."

Middle East situation

Joseph J. Sisco, Assistant Secretary of State for Near Eastern and South Asian Affairs, told the trade association representatives that "this disengagement of forces agreement between Egypt and Israel could mark a turning point in the entire area."

"We find in the Middle East today a different perception of the situation," said Sisco, "each side basically seems to be reflecting the view that each has had enough of war, that neither side can achieve a decisive victory in a military sense. . . .

"Regardless of whatever criticism one might hear of the United States' position in the past," said Sisco, "the U. S. has been the sole major power that is acceptable to both sides as an intermediary."

The ASAE membership, Sawhill pointed out, represents 28 million men and women "who are in important positions in the country and who are thought leaders and people who can help us get the job done."

Asserting that "we are laying out the facts for you today," the Deputy Administrator of the Federal Energy Offices solicited from the association representatives a "long range commitment . . . to help us carry out the conservation measures . . . and beyond that . . . to work in increasing the energy supplies that will be so vital for this country."

"It was one of the most successful dialogues between industry and government I've ever seen," one association representative from a southwestern state said of the meeting. The briefing participants, most of the speakers and their aides continued informal discussions.

Sawhill emphasized that it is important to "establish a continuing dialogue between you who represent such an important part of America and us who are in policy-making roles for this very important subject that is going to be with us for sometime."

Questions to the speakers reflected concerns of the diverse interests represented at the briefing. Often Sawhill found himself responding that "when you give a little to one you have to take away from another . . . somebody is going to come up a little short."

The hotel and motel industry expressed concern about possible restrictions on the number of retail establishments such as restaurants and hotels that remain open, and about the effects on the industry of Sunday closing of gasoline stations.

Secretary Dent responded that tourism in the U. S. involves $60 billion worth of the economy and "we could not afford to close it up."

"Nor could we afford to even ask you gentlemen to stop your annual meetings, wherever they may be. We do ask you, when you have these meetings to see that public transportation and the lowest consumption of energy is involved, not only in getting there but while you are there."

Here are some examples of theASAE members' dialogue with the Federal policy makers. Questions and answers have been paraphrased for brevity.

Q: What are the odds on rationing? SAWHILL: We've said 50-50. If I said 55-45 or 45-55 you would still know that our basic aim is to avoid rationing.

Q: What about the rumored energy-saving products the oil companies are keeping off the market? BRINEGAR: There's absolutely nothing to these persistent rumors that something great has been hidden.

Q: Would the proposed ½ percent energy growth goal hold back GNP growth to such a low level? SAWHILL: History shows energy growth rates at half those of GNP. If we achieve real conservation we don't have to sacrifice economic growth.

Q: Can we help convention-goers drive to many meetings that begin Monday mornings? SAWHILL: We just can't relax the Sunday closings. BRINEGAR: Perhaps you will have to see Saturday openings of conventions for a while.

Q: How can we give emergency vehicles priority at the pumps? SAWHILL: A State plan that sounds reasonable is to reserve one island of pumps for such vehicles. But this is a State matter.

Q: Any evidence on effect of Sunday closing so far? SAWHILL: No documentary evidence but I think there is no question it has had an effect.

The Commerce Secretary's answer to a question concerning consideration of a four-day work week to save energy drew applause from the briefing participants. He said it might be helpful selectively, but that on a broad scale it would disrupt productivity and increase costs.

"What effect do you think the energy crisis will have on international commercial negotiations?" Dent was asked.

"My personal opinion is that the last 60 days have indicated that the present system of international trade is all the more susceptible to improvement." He also expressed the opinion that President Nixon's leadership in calling together the consuming nations of the world on Feb. 11 is indicative of the determination of this government to work shoulder to shoulder with others around the world to solve problems for the benefit of everyone.

Asked about the prospects of gasification of coal, Secretary Morton emphasized that a first priority must be mining technology progress.

Prospects for gasification look very good from a technological point of view although the cost problems have not been worked out, he said.

Noting that the average miner is 10 years older than his counterpart on the surface of the ground and coal production has been declining, he said "all of that has to be geared into how much gasification investment we are willing to make until we know that we can get the coal.

"We are using about 600 million tons of coal a year at all points, including metallurgical coal," the Interior Secretary pointed out. "We visualize, in order for coal to play a real part, either gasified or not gasified, we should have about 1,500 million tons a year."

Dr. Ray, the last speaker on the program, suggested that rapid development of atomic energy and other technologies will "save and conserve our precious fossil fuels for what will turn out in the long run to be their highest and best use. . . . that is, for the petrochemical industries, for synthetic industries, for those applications that transportation for which electricity is really not very practical."

The AEC chairman also commented on one of the biggest public fears of atomic power—disposal of radioactive waste.

"Where are we going to store those wastes? They have half-lives of 10,000 years," a questioner stated.

She said radioactive waste material falls into two categories, that from the weapons program which began 30 years ago, and waste from the nuclear power plants, which is a different kind of waste and not near the same amount.

High level waste from the weapons program in liquid was put into tanks and buried in the ground at the Hanford reservations. Leaks have been widely publicized and have caused some alarm.

In 1965, she said, a program was started to solidify those wastes by circulating them through evaporators and converting liquid to a salt cake As a relatively dry salt material, it cannot leak out of those storage tanks. She said about half of the material has been so solidified and the program will be completed by the end of 1977. Then, she added, it will be safe to say there will not be any more leaks.

Commercial nuclear power generates a different kind of waste and "if we were to accumulate all of the wastes from all of the nuclear power plants now in existence in all the years between now and the year 2000 and do the same thing to it—reduce it to a solid salt cake—we could put it all on one acre."

"Atomic power is here," she asserted, "it is a present and practical thing, it is one way to make electricity. The sooner we begin to look at it as one way to produce that kind of energy and stop thinking about it in all of the other ways it can be used in the same context, the better off we will be."

ASAE HONORED—*P. D. "Bud" Hermann left, ASAE president, accepts a SavEnergy citation presented by Secretary Dent for the organization's contribution to energy conservation. The ASAE developed an energy audit procedure which industries are using to pinpoint places to conserve energy without curtailing production.*

Travel Industry Told Its Impact On Economy Merits Energy Share

Assurances have been given the 60-billion-dollar-a-year American tourism industry that its major importance to the nation's economy is recognized, and that its demands will be proportionately considered along with those of other industries in the allocation of scarce energy resources.

These assurances were given at a two-day conference held last month for State travel directors by the United States Travel Service (USTS), the Commerce Department agency responsible for developing international tourism in the United States.

The meeting, the first of its kind ever sponsored by USTS, was called and coordinated by C. Langhorne Washburn, Assistant Secretary of Commerce for Tourism. Highlighting the agenda was a panel discussion on the impact of the energy crisis on tourism moderated by Michael Miller, Deputy Assistant Secretary of Commerce for Tourism.

Subsequent to the conference, the Federal Energy Office (FEO) issued a new set of mandatory petroleum allocation regulations involving extensive changes in the regulations previously announced and published. The new regulations were published in the *Federal Register* of Jan. 14. Information concerning them may be obtained from the Administrator, Federal Energy Office (FEO), 4001 New Executive Office Building, Washington, D.C. 20461, or calling 202-395-4672.

Tourism in the U.S. is said to support between 2.3 million and 3.5 million jobs. It is ranked among the three top industries in 46 States, and is said to be the leading industry in Hawaii, Florida, and Nevada. The National Tourism Resources Commission reports that it would rank second only to grocery sales if it could be classified as a single retail activity.

Vice President's views

Vice President Gerald R. Ford told the conference that he disagreed with those "who say that because tourism has an aspect of pleasure it is expendable in the current circumstances."

"It is my judgment that pleasure is a contributing factor to a good society," he said, "and although we may have to sacrifice a little it doesn't mean that we have to end it in toto."

Ford expressed the opinion that the problem could be solved, with the help of technical personnel and the American people, by moving forward with President Nixon's program for an outlay of some $10 billion in the hope of achieving self-sufficiency in energy by 1980.

"We cannot ignore the economic importance of the tourism industry in the United States," Secretary of Commerce Frederick B. Dent said, "and we certainly cannot penalize this segment of the economy any more than we can penalize any industry.

"No one is asking any segment of the American economy to go out of business. What is being asked of all segments of the economy and of the American people is to adjust to two realities: a shortage of energy and higher-priced energy.

"England and Western Europe have had a high rate of tourist activity and this tourist activity has grown up in an area which we would consider suffering from high-priced fuels. Those who have traveled abroad know how pleasant it can be to use buses, trains, and small automobiles. When traveling on the Continent, it is apparent that people wear heavier clothing in the winter and lighter clothing in the summer rather than depend on heating and air conditioning for their personal comfort.

"These are such accommodations as we must strive for in order to

preserve and expand tourism in the United States."

He added that the lifestyle changes recently introduced in the U.S. "have greatly affected the tourism industry already, and we can foresee greater influences on it in the future.

"If the vacationer thinks of driving his automobile to his destination, he must plan to reduce his speed to 55 miles an hour. He will have to plan his trip to avoid long-distance driving on Sunday when gas stations are closed.

"If he decides to fly to his vacation destination, he may be facing increased fares. He may have to settle for a flight at a less convenient departure time.

"He may decide to rely on alternative forms of transportation.

"When he arrives at his destination, the surroundings may be a little darker and his accommodations may be a little cooler."

'Won't be ignored'

William A. Johnson, Director of the Office of Policy Analysis, Federal Energy Office, conveyed to the State travel directors the assurance of Administrator William E. Simon that the tourism industry "is deemed to be important to the economy, and will not be ignored in the Federal allocation program."

In recognition of this, he said, a number of provisions are being adopted.

"We have attempted," he explained, "to allocate adequate supplies of fuel to the commercial transportation sector to permit nearly normal schedules for all carriers.

"With only slight variations, both international and domestic commercial airlines will receive 95 percent of their 1972 base demand. This should not significantly impair their flight schedules. Trains and buses using middle distillate fuels are scheduled to receive 100 percent of current requirements. Tour buses and other chartering services will also be granted 100 percent of current requirements.

SERIOUS MATTER—*Norman Philion (left), senior vice president of Air Transport Assn., looks on as William Johnson of the Federal Energy Office fields a question during energy conference for state travel directors in Washington recently.*

"The biggest issue undoubtedly is the private passenger vehicle which has become the principal mode of tourism and recreational transportation in our country. Shortages of crude oil and limitations on refinery flexibility guarantee a gasoline shortage of at least 700,000 barrels a day.

"It will be necessary to switch some refinery output from gasoline to heating fuels to meet critical fuel shortages for electric utilities and industry. This will require further reductions in gasoline output."

Johnson pointed to the actions already taken to reduce gasoline consumption, such as the voluntary reductions in gasoline purchases, the establishment of 55 mile per hour speed limits, the voluntary ban on retail gas sales on Sunday, the request that students use public transportation, school buses, and carpools in place of private autos, the agreement of independent gas distributors and retailers to institute 10-gallon limits on gas sales and the request that major oil companies do the same.

"If these measures," he said, "result in the desired reduction in gasoline use, it will not be necessary to implement a rationing system. However, if rationing is needed, a standby system is now being prepared."

Johnson said that, in view of the helpful responses being received to the requests for cooperation in gas conservation he was hopeful rationing could be avoided.

"Regardless of the system that might be adopted," he explained, "it need not impose a serious threat to the tourism industry. Limited although adequate quantities of gasoline will be available and will be distributed in an equitable manner.

"Gasoline dealers on interstate routes will continue to receive quotas at the same rate as metropolitan and urban dealers. As long as the voluntary gasoline program continues, State officials will be able to redirect gasoline sales on interstate routes to tourists.

"Finally, under a rationing program, if it were to become necessary, those families wishing to

ENERGETIC TALK—*William Toohey, president of Discover America Travel Organizations, addresses meeting of state travel directors. The conference heard official pledges that the industry would get its fair share of energy resources.*

take driving vacations, by using carpools and limiting unnecessary driving, could accumulate the requisite number of gasoline coupons to make the trip. . . .

"In no case do we want to say that gasoline consumers must use their ration in a particular way. And this applies to pleasure boating as well as pleasure driving. In all things, we want to maintain maximum freedom of choice for the individual.

"If households make a conscious effort to save on gasoline, they will also be able to use their automobiles for pleasure driving.

"I hope we have done our part for the tourism industry. Let me urge the industry to do its part for the Nation. Emphasize the use of public transportation to travel long distances and for visiting landmarks in our tourist centers.

"Urge tourist agents to devise package plans that provide full access to tourist activities with minimal use of fuel. Ask hotel and motel owners to comply with the Government's requests to lower thermostats in winter and to limit the use of air conditioning in the summer, and where feasible to restrict outdoor lighting.

"If everyone conserved fuel, there would be no shortage. There would be no need for allocation or rationing. There would be no need to curtail tourism.

"However, this would not ease our burden in Washington. Those who claim the crisis is a hoax would feel vindicated and the FEO's projection of shortages would be all the more suspect. For we would then be in the unhappy role of the successful doctor who, having prevented an illness, is criticized by his patient for having done nothing but send a bill."

Stay close to home

James G. Watt, Director of the Department of the Interior Bureau of Outdoor Recreation, said the challenge to the nation's recreation community presented by the fuel shortage "is to develop and utilize close-to-home outdoor recreation programs and facilities that will best contribute to the national fuel conservation effort."

Energy-related actions which are being considered, he said, include the following:

► Giving priority Land and Water Conservation funding to acquisition of land located along public transportation corridors, within walking distance of primary user groups, and accessible to non-motor vehicles and public transit.

► Focusing Land and Water Conservation Fund money on acquisition or establish a definite ratio favoring acquisition over development.

► Gearing development funds to projects which provide non-energy-consuming recreation activities, such as bicycling and hiking, and encourage urban-oriented day use projects, such as tennis courts, swimming pools, playgrounds and ballfields.

Watt said the Interior Department was looking forward to working with other Federal agencies to encourage development of abandoned railroad rights of way near major population centers to the extent that this may take place as a result of the new Regional Rail Reorganization Act.

He added that the Department is working with leaders of recreation industries to encourage the use of mass transportation systems to parklands in order to reduce use of private automobiles.

Robert Henri Binder, Assistant Secretary-Designate for Policy, Plans, and International Affairs, Department of Transportation, said that if auto occupancy for urban work trips could be increased from the present average of 1.6 persons to two persons per car, five billion gallons of gasoline a year would be saved.

John de Lorenzi, Managing Director, Public Policy Division, American Automobile Association, said his organization is calling on its members and the motoring public to voluntarily reduce their use of gasoline by 25 percent.

ADMINISTERING THE OATH—*Secretary Dent presides at ceremony beginning first session of President's Export Council.*

Industry Advisory Council Gets Challenge On Exports

The 22 business leaders who are charter members of the President's Export Council were challenged at their formation meeting to generate new momentum behind overseas sales of U.S. goods and services, in the face of rising world petroleum costs and the recent increase in the value of the dollar.

Secretary of Commerce Dent, while emphasizing the difficulties inherent in the current period, also stressed the timeliness of President Nixon's decision to form the Council and to draw from it suggested solutions by U.S. industry to national balance-of-trade problems.

COUNCIL MEMBER—*John W. Hanley of Monsanto arrives for meeting.*

The Council was told that the President's Interagency Committee on Export Expansion, established within Government simultaneously with the Export Council, has set up task forces to deal with export impediments. The support of that committee, and of other Federal bodies, has been pledged to the Export Council.

Among the subjects discussed at the Export Council meeting were the effects of U.S. price controls on export expansion, taxation problems, the value of the Domestic International Sales Corporation (DISC) tax incentive, and export financing.

The members of the President's Export Council are:

Fletcher L. Byrom, Koppers Co., Pittsburgh, Chairman; F. Perry Wilson, Union Carbide Corp., New York, Vice Chairman.

James H. Binns, Armstrong Cork Co., Lancaster, Pa.; Werner C. Brown, Hercules, Inc., Wilmington Del.; Hugh G. Chatham, Chatham Mfg., Elkin, N.C.; Edward W. Cook, Cook Industries, Inc., Memphis, Tenn.; R. Hal Dean, Ralston Purina Co., St. Louis; E. Mandell de Windt, Eaton Corp., Cleveland;

COUNCIL LEADERS—*Fletcher Byrom of Koppers (above) and F. Perry Wilson of Union Carbide (below) are Council chairman and vice chairman.*

ACTIVE PARTICIPANTS—*Lynn A. Towsend of Chrysler (left), David C. Scott, Allis-Chalmers (center), and John L. Hanigan, Brunswick and Reginald H. Jones, General Electric (right photo), contributed export expansion views.*

SHARING VIEWS—*James H. Binns (left), Armstrong Cork, with Hugh Chatham, Chatham Mfg. Below is Calvin W. Verity of Armco Steel.*

AROUND THE TABLE—*J. Paul Lyet, Sperry Rand, and Werner C. Brown, Hercules (left and right above), and (left to right below) John W. James, Dresser Industries; E. Mandell de Windt, Eaton Corp.; T. A. Wilson, Boeing, and Robert Hatfield, Continental Can.*

J. Robert Fluor, Fluor Corp., Los Angeles; John L. Hanigan, Brunswick Corp., Skokie, Ill.

Also, John W. Hanley, Monsanto Co., St. Louis; John D. Harper, Aluminum Company of America, Pittsburgh; Robert Hatfield, Continental Can Co., New York; Melvin C. Holm, Carrier Corp., Syracuse, N.Y.; John V. James, Dresser Industries, Dallas; Reginald H. Jones, General Electric Co., New York.

Also, J. Paul Lyet, Sperry Rand Corp., New York; David C. Scott, Allis Chalmers Corp., Milwaukee; Mark Shepard, Jr., Texas Instruments, Dallas; Lynn A. Townsend, Chrysler Corp., Detroit; Calvin W. Verity, Jr., Armco Steel Corp., Middletown, Ohio; and T. A. Wilson, Boeing Corp., Seattle.

ATTENTIVE—*Melvin C. Holm, Carrier Corp., follows proceedings.*

New GATT Textiles Arrangement Aims At Orderly Trade Expansion

For the next four years world trade in textiles will be subject to new and special rules. On Jan. 1, the United States accepted the Arrangement Regarding International Trade in Textiles. Its purpose is to bring a sustained but orderly expansion in international textile trade, and it culminates two years of study within the General Agreement on Tariffs and Trade (GATT).

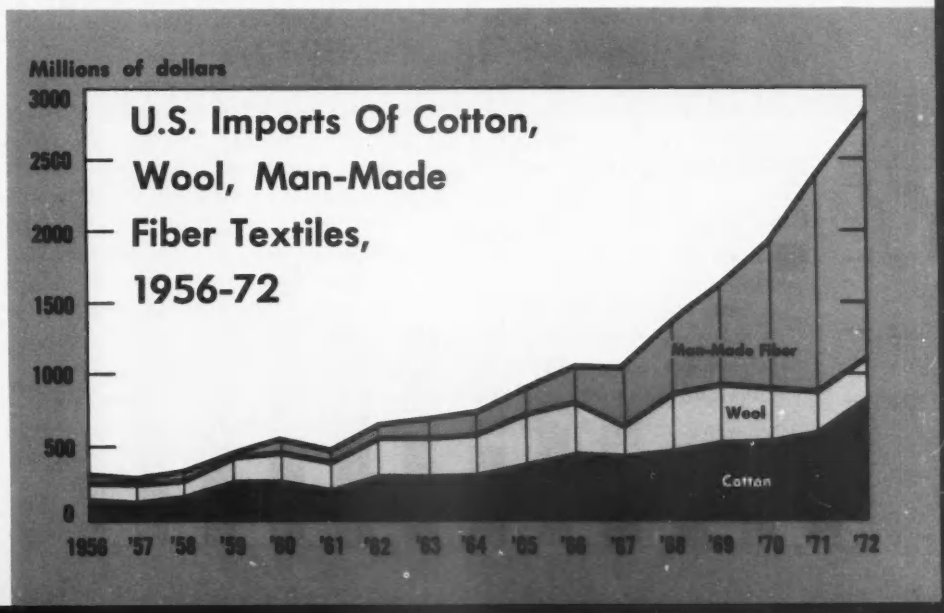
The GATT was formed in 1947 by the leading trading nations as a contractual framework for the conduct of international trade, and as a forum for the resolution of trade difficulties and disputes.

The need for international rules governing textile trade has been recognized since the early 1960's when the United States and other developed countries found that their textile and apparel markets were subject to disruption by cotton textile imports from developing countries with low wage scales.

This disruption seriously affected the largest employing industry in the U.S. manufacturing sector. The textile and apparel industry's 2.4 million workers represent one out of every eight American manufacturing workers. Another one million cotton farmers and wool growers are dependent on the industry for their livelihoods. The industry's 28,000 plants are in all 50 states, with 60 percent of the jobs located in non-metropolitan areas. In many towns the local mill is the only source of employment. Unemployment in the industry has a disproportionate impact on minority group members, the less educated, and often the elderly.

In 1962, the United States and 21 other textile trading countries negotiated, under GATT, the Long-Term Arrangement Regarding International Trade in Cotton Textiles. Under the LTA, the United States could unilaterally restrict cotton textile and apparel imports from countries which disrupted or threatened to disrupt the domestic market. However, most of United States cotton textile trade is subject to one of 28 cotton textile and apparel bilateral agreements. Each agreement sets levels for exports to the United States of cotton textiles and apparel.

The LTA was a major step, but it was not a complete solution, for in the 1960's world man-made fiber trade skyrocketed. While in 1962 the United States and other developed countries imported a negligible amount of man-made fiber textiles or apparel, by 1970 developed countries imported over 1.1 billion metric tons. Between 1964 and 1971, United States man-made fiber



textile imports alone grew by 1200 percent—from 328 million square yards to 4.3 billion square yards. In dollar terms, these imports grew from $129 million in 1964 to $1.6 billion in 1971.

In 1971 the United States negotiated bilateral wool and man-made fiber textile and apparel agreements with Japan, Hong Kong, Taiwan and Korea, the leading Far Eastern exporting countries. A total of seven wool and man-made fiber agreements have been negotiated to date.

These agreements have had a beneficial impact on the immediate wool and man-made fiber textile import problem. However, these agreements are not a complete nor long-term solution and a more general international framework was sought. Accordingly the United States led in the moves toward an international arrangement to cover man-made fiber and wool textile trade.

Group at work

In 1972 the GATT Council established a multinational Working Party to study the problems of world textile trade. This past summer the Working Party recommended the negotiation of an arrangement to cover world trade in cotton, wool and man-made fiber textiles and apparel. The Council accepted the suggestion and set a relatively short deadline for its accomplishment—Dec. 31, 1973.

In the United States, textile matters are handled by the Council on International Economic Policy's special working group on textile trade policy, headed by Anthony Jurich. The special working group gives policy guidance to the interagency Committee for the Implementation of Textile Agreements, established by Executive Order 11651 and headed by Deputy Assistant Secretary of Commerce Seth Bodner. The Committee will implement the Arrangement and the 35 bilateral textile agreements that now will come under it. The Committee is composed of representatives of Commerce, State, Labor, Treasury and a nonvoting member, the Office of Special Representative for Trade Negotiations.

The Committee, known as CITA, is administered by the Commerce Department's Office of Textiles under Arthur Garel. Inquiries concerning the Arrangement can be made to Office of Textiles, Room 2815, U.S. Department of Commerce, Washington, D.C. 20230.

In the next few months representatives of 50 nations worked in Geneva to reconcile the myriad of views and conflicting positions taken by importing and exporting countries, and developing and developed nations. The United States negotiating team was led by Anthony Jurich of the Council on International Economic Policy.

On Dec. 20, just eleven days before the Council's deadline, agreement was reached on the terms of the Arrangement. It is expected that by the end of this year most of the world's leading textile trading nations will be members.

Arrangement provisions

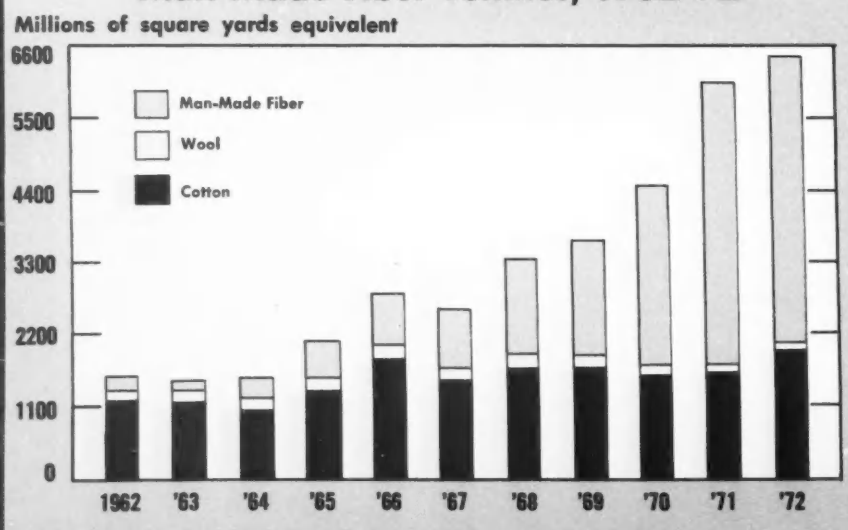
The Arrangement provides a mechanism for countries to solve their textile trade problems. It recognizes the important role that can be played by negotiated bilateral agreements. Such agreements provide exporting countries assured access growth rates for their textile exports.

When, in accordance with criteria specified in the Arrangement, an importing country finds its market disrupted, it may seek bilateral consultations with the government of the exporting country. If no solution is reached in 60 days the importing country may unilaterally restrain further imports from the exporting country of the product in question. The Arrangement provides a formula to be used in calculating the minimum level of restraint.

The Arrangement acknowledges that because textile trade problems are unique, its measures should not be considered applicable to other trade areas.

One unique feature is its establishment under GATT of a Textile Surveillance Body to be comprised of importing and exporting countries. The Surveillance Body will supervise operation of the Arrangement. It will review all bilateral agreements and unilateral actions to see if they are in conformity with the Arrangement's provisions.

U.S. Imports Of Cotton, Wool, Man-Made Fiber Textiles, 1962-72



Answers On Seabed Sovereignty Could Spur Hunt For Minerals

In an era of expanding demand and growing shortages, big questions facing the United States and nearly all other nations are to what extent, and by whom, the vast, unexploited metallic mineral resources of the deep ocean beds are to be mined, and whether internationally acceptable rules can be established for their exploitation.

These knotty questions are being tackled by the Third United Nations Conference on the Law of the Sea, which will come to grips with a number of maritime problems in its 10-week substantive session in Caracas, Venezuela, beginning in June. (See accompanying box.)

Nearly a dozen U.S. Departments and agencies, including the Department of Commerce, are participating in this global effort to work out a new legal order for the use and management of the oceans, both adjacent to the coasts and the deep seas beyond. The Chairman of the Commerce Department's Committee on the Law of the Sea, and head of the Commerce contingent of the U.S. delegation to the Caracas Conference, is Howard W. Pollock, Deputy Administrator of the National Oceanic and Atmospheric Administration (NOAA).

"While I am mindful," Pollock says, "of the problems, both national and international, associated with deep seabed mining, I am hopeful that they may be solved in a satisfactory and equitable manner. . . .

"In the absence of a treaty governing the deep seabed, it is our view that United States nationals have the right to mine the deep seabed under present international law. These nationals do not need a license or permit from the United States Government."

A number of other nations do not agree. They point to the 1969 moratorium resolution passed by a majority of the United Nations Gen-

The Third United Nations Law of the Sea Conference began with a two-week organizational session in December in New York City.

This initial session set up a framework of committees to prepare for the substantive session next summer in Caracas. These groups consist of a general or steering committee composed of representatives of 48 countries, including the U.S.; a drafting committee on which 23 countries are represented, including the U.S.; and three main committees on which all of the 140-odd countries participating in the conference are represented.

One of the latter committees will deal with the problem of the deep seabeds and their mineral resources, mainly manganese nodules. Another will deal with the breadth of the territorial sea, transit through straits, fishing, mineral and other rights in the continental margins, as well as certain other subjects. And the third will tackle the issues involved in scientific research and pollution.

Aside from the resources of the deep seabeds beyond areas to be recognized as national jurisdictions and the issues noted above, the conference will be concerned with developing a system for peaceful and compulsory settlement of disputes arising out of ocean uses.

The head of the U.S. delegation to the conference is John R. Stevenson, Special Representative of the President to the conference with the rank of Ambassador. John Norton Moore is the deputy representative of the President to the conference.

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WHAT IT'S ALL ABOUT—*Scattered over the ocean floors, these nodules contain manganese, copper nickel and cobalt. There are thought to be about 1.5 trillion tons of them in the Pacific Ocean alone.*

ON THE SURFACE—*Dredge basket unloads samples gathered from the sea bottom on research ship's deck.*

eral Assembly. Their view is that international law does not permit exploitation of the deep seabed in the absence of international agreement. The U.S. voted against the resolution.

Pollock points to the development of a climate "which appears to militate against private investment in deep ocean mining because of the uncertainty surrounding the content of a treaty to govern such activities.

"Yet it is important," he continues, "to note that development of the mineral resources of the deep seabed could hold significant economic benefits for the United States, especially in the long run. Accordingly, one of the objectives of the United States at the Law of the Sea Conference is to reach international agreement on a regime for exploration and exploitation of deep seabed resources which not only will remove the legal uncertainties but will also provide a favorable investment climate for deep ocean mining by private enterprise."

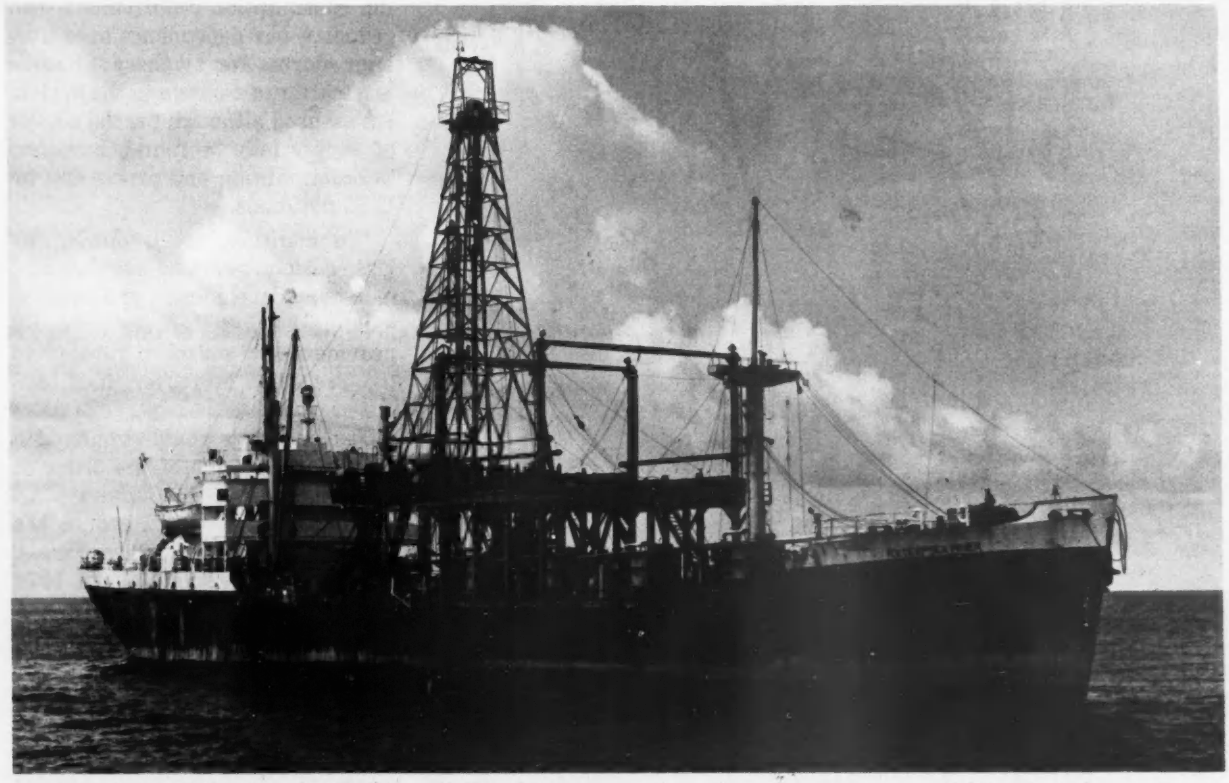
For more than 10 years, certain American companies have been exploring the prospect of ocean mining. At present, more than 30 American companies are said to be interested in the possibilities offered by this new source of metals vital to industry. Leaders in the development processes are reported to be Summa Corp., a privately-held enterprise of Howard Hughes; Deepsea Ventures, Inc., an ocean mining research subsidiary of Tenneco, Inc.; Kennecott Copper, and International Nickel.

The Hughes company is said to have a specially-built ship of innovative design for ultimate use in mining operations. American companies are reported to have invested more than $100 million in the exploration and development work, and some of them report that they have been able to produce metals on an experimental basis from the ocean sources. The activity of American companies in this effort is another evidence of their alert response to new industrial opportunities. The technology for mining the ocean is said to be highly complex, sophisticated, and expensive. But American technology in the field at the present stage is rated as being further advanced than that of the rest of the world.

Advantage may vanish

American industry sources warn, however, that U.S. supremacy in this technology may be a fragile and disappearing phenomenon if progress toward eventual commercial production is inhibited by legal uncertainties. Companies and government agencies from such countries as Germany, Japan, France, and the Soviet Union are said to be in the race to develop deep sea mineral resources.

The objects of the competition are small, crumbly, black rocks that resemble burned potatoes. The existence of these rocks has been known for generations, but not until recent years has the discovery been made that they are valuable. Known generally as manganese nodules, they contain a number of metals which industry regards as vital. In addition to manganese, which is essential to steel production, they contain copper, nickel,



MINING THE OCEAN DEEPS—*The Research Vessel* Deepsea Miner *explores the Pacific bottom between Hawaii and California for manganese nodules, a resource whose time seems to have come. Upcoming Law of the Sea conference in Caracas will attempt to clarify the legal status of exploiting ocean-bottom resources by countries and by private firms.*

and cobalt, and perhaps traces of a dozen or more other metals.

These nodules are found in the cold, dark depths of the oceans in 12,000 to 20,000 feet of water, scattered along the often rolling and uneven hills of the ocean bottom. The extent to which they may be found in other ocean areas, and what the supply may be, are unknown. Speculation is that the Pacific alone may contain 1.5 trillion tons of them. Apparently, they are being formed at a slow rate.

The area in which exploratory mining is now being done reportedly is in the Eastern Pacific from the vicinity of Hawaii northward toward the continental United States. Companies engaged in development operations have not announced their precise locations of interest. A major problem confronting progress in ocean mining, as mentioned earlier, is security for investment.

Estimates of the financing needed for mining and subsequent refining operations range from $250 to $400 million. To make such an investment worthwhile, it is explained, there would have to be assurance that a company would be protected in a particular mining location. This is especially so in view of the fact that the highly sophisticated mining and processing equipment would have to be designed to conform to the character of the specific location and the nature of the content of the nodules, which can vary widely from one location to another.

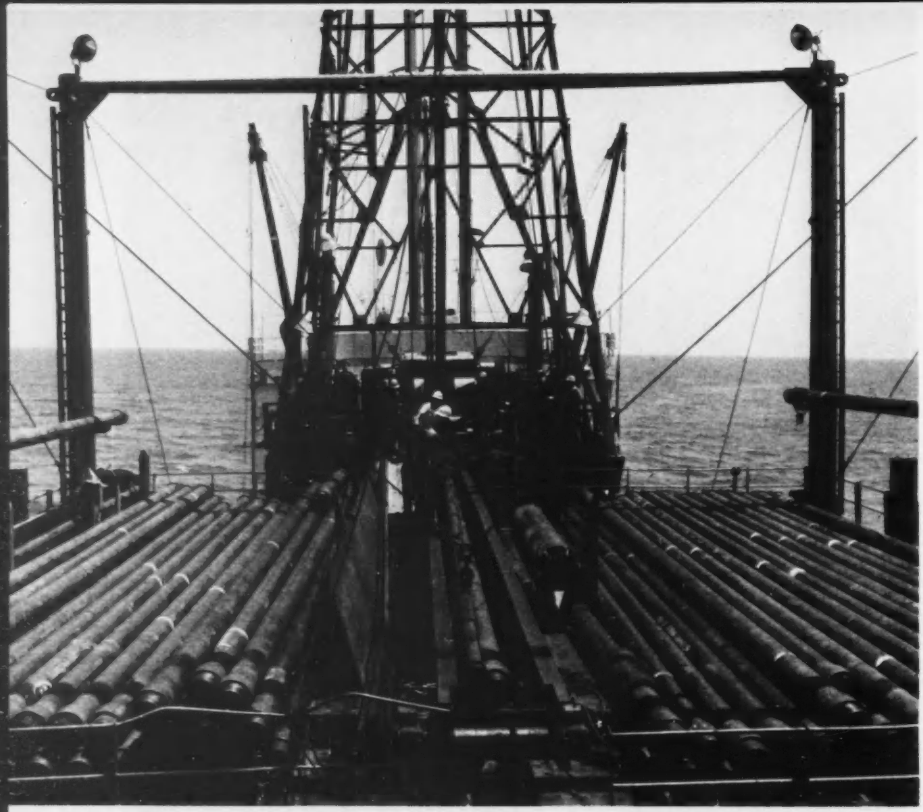
Unilateral pressures

Because of the potential of a tremendous new resource and the developing interest in other countries in exploiting it, demands have arisen for unilateral action on the part of the United States aimed at bringing deepsea mining into production. Legislation has been introduced in Congress, with support from American industry, setting up a licensing system for U.S. companies to develop the resource. The Administration, however, is opposed to unilateral action on the part of the U.S. at this time, emphasizing that the preferred approach to the exploitation of deep sea mineral resources is through an international agreement setting up rules to which nations generally will agree.

Seek world accord

With the Caracas Conference only months away, it is pointed out, U.S. efforts should be concentrated on reaching an international agreement. This is not regarded as ruling out some type of legislation eventually if a timely and successful international agreement is not reached.

Pollock explains that negotiation of a treaty as complex and important as the Law of the Sea, with more than 140 countries partici-



LINKS TO THE BOTTOM—*This research vessel carried more than 5,000 feet of drill riser casing equipped with special couplings. Procedures used are similar to those employed by offshore oil rigs, except the ship does not hold a fixed position.*

pating, is a difficult and time-consuming process.

"Certain issues," he adds, "are not only of fundamental importance to each nation, but some transcend the interests of individual states. For example, in considering the deep seabeds we are trying to accommodate the disparate views which the developing countries of the world and the developed countries have in respect to their overall relationships to each other regarding foreign economic affairs in particular.

"As developing countries apparently see it, the opportunity is now available to them to bring about a new basis in international law for doing business with the industrially advanced countries in respect to resources. On the other hand, the industrially advanced countries themselves, concerned with the need to supply their economies with important commodities, do not believe that the approach pursued by the developing countries will meet their national interest. However, I believe that most countries are keenly aware of the importance of a genuine accommodation of the interests of all states in the Law of the Sea. Thus, I conclude that it is possible to secure an acceptable international agreement in this vital area.

'No adequate supplies'

"Manganese nodules which contain manganese, nickel, copper, and cobalt can be a particularly significant mineral resource for the United States. The United States has no adequate domestic supplies of manganese, nickel, and cobalt. Although we presently import only around seven percent of our copper requirements, it is expected that this figure will rise over the long run as domestic mine production lags behind consumption due to the increasing cost of mining, which reflects declining ore grades and other factors.

"Meeting our high and increasing consumption requirements and reducing our dependence upon foreign sources for all these minerals is a matter of concern to the nation. An assured although partial source of supply may be found, however, in ocean mining and processing by U.S. nationals.

"In addition, ocean mining by U.S. nationals would provide new industrial development and employment in the United States and could provide a new source of revenue to the Treasury. Moreover, it is estimated that in the early 1980s those seabed minerals could command a total market value of the order of magnitude of $400 million a year. Furthermore, it would reduce the U.S. import bill for such minerals, which for the years 1970 to 1972 averaged almost $900 million, and will likely grow further by the early 1980s.

"Scientific investigations and extensive surveys by private industry leave little doubt that mineable resources of manganese nodules compare favorably with known land resources both in quantity and grade. That situation should provide the additional advantage of cost stability for ocean miners for many years.

"By the early 1980s we anticipate that several U.S. firms will be engaged in deepsea mining. Barring major changes in technology, the world-wide consumption needs for the metals mentioned could more than double by the end of the century. World resource estimates, including both land-based and seabed deposits, indicate that these needs can be met. We believe that seabed minerals can capture a share of this market in competition with land-based production."

The Law of the Sea Conference at Caracas will be the most ambitious international undertaking ever attempted for dealing with the problems of the marine environment. Success in this quest for world order in the oceans would constitute a new milestone in human history. —*NOAA*

DOMESTIC BUSINESS REPORT

- **Special unit to handle small firms' energy problems**
- **New petroleum export licensing system devised**
- **Maritime Administration to aid fuel-short ships**
- **New plant, equipment outlays may rise 12 percent**
- **Japanese fishcake may tempt U.S. appetites, industries**

Education Tied To Minority Firm's Success

Noting that "90 percent of all business failures are attributable to poor management skills of the business owner," a Federal advisory group has presented a long-term national minority business education and training program.

The program will give attention to immediate education needs of minorities already in business and also introduce minority youth to the potentialities of business ownership, through the following:

► Basic business education and training programs geared specifically for minority entrepreneurs and their staffs.

► Communication and outreach programs which promote enterprise ownership and related training opportunities.

► Mobilization of existing public and private resources to support education training programs.

► Evaluation, demonstration and research projects to provide needed data, new program designs, and useful feedback for an effective system to deliver education and training resources and services to minority target groups at the local level.

► A local "delivery system" to insure that needed services are provided to the target groups.

The program is recommended by a 73-member National Task Force on Education and Training for Minority Business Enterprise.

Dr. Robert M. Worthington of Rutgers University, chairman of the task force, presented the final report and recommendations to Secretary Caspar Weinberger of the Department of Health, Education and Welfare, and Secretary of Commerce Frederick B. Dent. Both cabinet members promised support for many of the recommendations. Dr. Robert H. Marik, HEW Assistant Secretary, was named chairman of a new interagency council to implement the program.

HEW and the Labor Department joined Commerce's Office of Minority Business Enterprise in stimulating the 18-month study.

The task force said the program will "require a strong leadership role at the Federal level."

Alex Armendaris, OMBE Director, said that as a result of the task force deliberations "OMBE is including an education and training specialist position in each of its six regional offices. Also, a major section of OMBE's national programs division will concentrate on minority business education and management training."

Institutional resources and the educational institutions must be mobilized and, in some cases, redirected to accomplish the task, the group concluded.

Commending recent progress in the minority enterprise program, the task force pointed out a "tenfold growth since 1969," and noted emerging participation by the private and federal sectors.

MINORITY EDUCATION STUDIED—*Under Secretary John K. Tabor (left), who heads the Interagency Council for Minority Business Enterprise, and Alex Armendaris, Director of the Office of Minority Business Enterprise, discuss the dimensions of a new long-term national minority business education and training program.*

OMBE was established in 1969 to coordinate federal and private sector activities in minority business development.

"Assistance by the private sector is multidimensional," the task force noted. In addition to support from business firms, private foundations and private professional and trade associations participate in a variety of training programs for minority entrepreneurs.

To give full strength to the national effort, the task force recommended:

- Establishment of state and local task forces on education and training for minority business enterprise, to educate, train, and support current and future minority owners, with state departments of education and local education systems providing core assistance.
- Establishment of 40 local "delivery systems" to provide basic management training by the end of fiscal 1974. A "delivery system" is a way of insuring that the new national emphasis is fully delivered at the local level, that all available federal programs are fully utilized.
- Development of improved curricula and teaching resources, aimed at teaching programs for youth and postsecondary schools and institutions' efforts toward improved curricula and teaching resources for minority graduates and undergraduate business students.
- Increased support for formal business education, including "minority enterprise" fellowships, scholarships and loans to support formal business training for minority students.
- Increased federal support immediately to predominantly minority institutions of higher learning to improve and expand their undergraduate and graduate business management programs.
- Joint effort by OMBE, the Office of Education and the Small Business Administration to develop a two-year associate degree program for small business ownership, in concert with selected colleges and universities.
- Establishment of 13 pilot programs in entrepreneurial career awareness and training for minority youth at the elementary and secondary school levels, and for youth outside the established school systems.
- Establishment of work experience programs for potential minority entrepreneurs by the federal government, working with private industry, to increase apprenticeship, internship and other similar opportunities.
- Components of education and training programs be designed with consideration to minority social, cultural, economic and historical differences, specifically bilingual instruction for non-English speaking minorities.

—OMBE

LISTENING—*HEW Secretary Caspar Weinberger listens to presentation of minority business education report.*

ANSWERING—*Dr. Robert M. Worthington, task force chairman, answers a question about the group's report.*

Industry Highlights

Petrochemicals Field Faces Chain Of Supply Problems

(Industry Highlights is prepared by the Office of Business Research and Analysis, Bureau of Domestic Commerce.)

The petrochemical industry's shipments in 1971 exceeded $40 billion, and employment exceeded 600,000 persons. Historically, the industry has made a substantial positive contribution to the U.S. balance of payments. This is expected to continue even though the industry is being adversely affected by problems associated with energy shortages, environmental regulations and capacity limitations.

The petrochemical industry is that part of the Chemical and Allied Product Industries which derives its raw materials from petroleum and natural gas. The petrochemical industry does not have discrete bounds as such, but generally refers to users and processors of petroleum and petroleum derived chemicals.

Large numbers of petrochemical intermediates are produced and consumed by a broad spectrum of industries; however, about 75 percent of the total value is accounted for by seven basic intermediates of which butadiene, benzene, ethylene and ammonia are the leaders. These in turn are used extensively in the manufacture of synthetic fibers (nylon, polyesters, acrylics) plastics material (polyethylene, polyvinylchloride, polystyrene), synthetic rubber, nitrogenous fertilizers and many other products.

Major raw material feedstocks for petrochemical intermediates and chemical products include natural gas and petroleum fractions. The materials from natural gas are methane, ethane, propane, and butane. Also, a substantial amount of feedstocks are derived from petroleum refining both in the distillation of crude oil and as a result of the cracking and reforming of petroleum fractions.

In the past two years feedstocks have been increasingly in tight supply, and the present energy crisis is aggravating this situation. The feedstock shortage has in turn led to reduced inventories for producers using petrochemical products. A recent Department of Commerce check of current and normal inventories of low density polyethylene, polystyrene, polyproplylene, and ABS resins indicated that 47 percent of those checked using low density polyethylene reported their current inventory at less than 50 percent of normal, while 48 percent of the polystyrene users and 39 and 37 percent of those using ABS resins and polypropylene, respectively, reported inventories of less than 50 percent of normal.

There has been increasing concern expressed about shortages of petrochemical products. Domestically this concern is especially strong for particular types of plastics materials such as polystyrene and styrene monomer. The shortages of these materials are limiting the supplies of many finished products, including certain health equipment items such as oxygen masks, kidney machines, wound suction units, and some laboratory equipment. Ammonia, another petrochemical derivative, also continues in very short supply, not only for large volume uses such as in fertilizers and explosives, but also in specialty applications, such as heat treating of metals.

The current shortage is further compounded by the diversion of chemical feedstocks, such as butane and benzene, into gasoline production and other fuel uses, and production limitations caused by environmental controls and Occupational Safety and Health Administration regulations.

Concern about these shortages preceded the embargo of oil shipments to the U.S., but since that action these concerns have intensified. Segments of the business community, especially plastic moulders and extruders, have sought relief in the form of price decontrol, action on exports, and some guarantee on the availability of feedstocks as part of the mandatory allocation program being developed by the Federal Energy Office.

Building materials

Prices for materials used in construction rose 9.4 percent in 1973, according to the Department of Labor's Wholesale Price Index (WPI). This rise was the largest since 1948 when the building materials component of the WPI increased by 10.8 percent. The leading contributor to this past year's increase was the lumber and wood products group which registered a 22.0 percent rise. Other product categories with price increases of 6 percent or more during the past year included concrete blocks (9.4 percent), concrete reinforcing steel bars (8.2 percent), brick (7.2 percent), enameled and iron plumbing fixtures (6.9 percent), and window glass (6.4 percent).

In the 1960's the building materials price increases as a whole were relatively small and were not a major contributor to overall construction inflation. During the last decade, escalating construction labor costs were considered the major inflationary factor.

In light of the 10.8 percent price rise last year and increases of 6.2 percent and 5.9 percent in 1971 and 1972, building materials are now a major factor in causing inflationary price rises in construction. Reflecting relatively moderate wage rate rises and the 9.4 percent materials price rise, the Commerce Department composite construction index rose 8.6 percent in 1973.

Energy Problems Of Small Business To Get Attention

Expressing concern over the effect of the energy shortage and remedial action on small business, the Small Business Administration has established a special office to help small businessmen cope with current energy problems.

Noting that the small businessman historically is the first to feel the squeeze, Thomas S. Kleppe, SBA Administrator, said "if history is an indicator then we know the small businessman will have to redouble his efforts just to survive."

"Our entire economy could be adversely affected if economic growth is not continued through the expansion of small business," Kleppe asserted. "Therefore, we urge that efforts be made so that the small firm does not bear the discriminatory brunt of these necessary controls on energy usage."

In addition, he said, measures should be taken so that possible materials shortages resulting from energy shortages are not proportionately greater for small firms.

The SBA Administrator further urged that small, high technology firms be utilized to help develop solutions to the energy crisis. These firms have the ability to make a major contribution to the national effort for energy self-sufficiency and should be called upon to help share in the research and development to solve these problems.

Kleppe also suggested that variances in the Environmental Protection Agency regulations should be considered so that small businesses, such as job shops, can continue production activities. At the same time, SBA will do its utmost in helping to finance small business in energy conversions, which require significant capital investment.

The new Office of Special Advisor to the SBA Administrator on Energy and Materials will list the industries that will be most severely affected by the energy and materials shortages, and work with other government agencies to assure that actions which must be taken to meet the crisis give small business a fair shake.

It will also review the outlook for SBA's loan portfolio and procurement program in light of the energy and other shortages.

The new office will make recommendations as to what constitutes a fair share for small business of the proposed energy research allocations and of the General Services Administration's materials stockpile.

SMALL FOOD STORE OPENS—*Customers outside a small retail food chain in the District of Columbia await the store's grand opening. Small businesses and food retailers are getting special attention from government and industry sources to problems unique to their interests during the energy shortage.*

Food Retailers Develop Energy Thrift Methods

Noting that 24-hour refrigeration to preserve perishable foods accounts for half of the retail food industry's energy consumption, selected food chains have initiated major energy conservation measures that do not include curtailment of store operating hours.

A recent self-analysis by the retail food industry points out that many supermarkets use the night hours for stocking merchandise. If food distributors were required to supply stores during the daytime hours, especially in the metropolitan areas, the result would be additional traffic congestion and delays conceivably wasting more fuel than would be saved.

The alternatives to curtailment of store operating hours to conserve energy are many and, according to Commerce industry specialists, if they were to be adopted by the retail food industry on a nationwide basis, could enable substantial units of fuel to be redirected to other sectors.

Among the measures put into effect by some food chains to conserve energy, are:

- Converting stores to the heat reclamation technique in which hot air generated by refrigeration equipment is captured and distributed to heat the stores. This results in a 50 percent savings in gas usage for heating purposes.
- Reducing by 50 percent outside lighting during light traffic hours

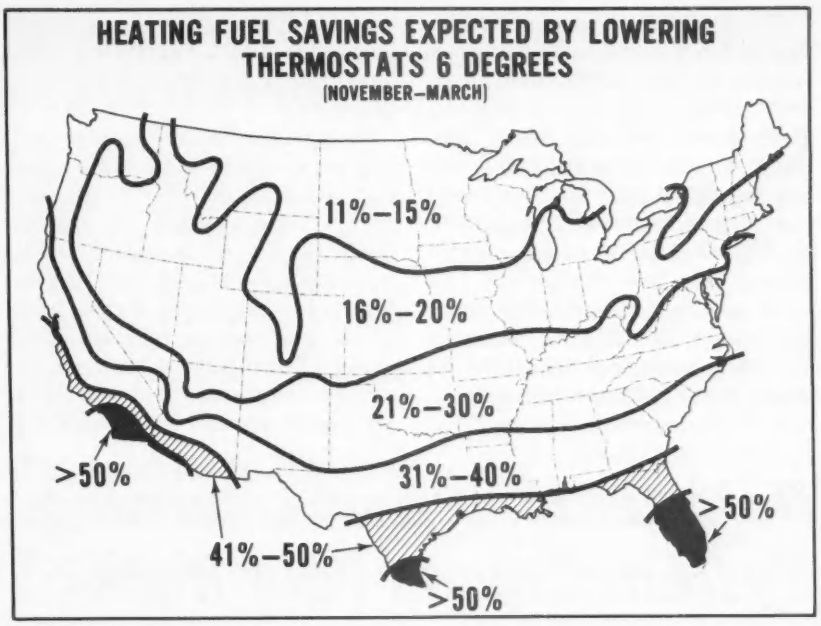
in 24-hour stores, and reductions in interior decor lighting.

- Eliminating the use of air doors at night.
- Installing outdoor temperature sensing thermostats to control indoor temperature more precisely in relation to outside temperature.
- Reducing electrical consumption for lighting within stores and offices by 20 percent by eliminating an average of 250 90-watt fluorescent tubes per store. This resulted in a chainwide savings of 2,250,000 watts per hour of operation, which over a one-month period could provide electricity for approximately 18,000 persons in 5,000 homes.
- Reducing consumption of natural gas at all locations by 10 percent through lowering internal temperatures of stores, distribution centers and offices. This savings is estimated to be the equivalent source of energy to heat 160 single family homes at 70 degrees for one month.
- Adjusting temperatures in the perishable distribution center by 5 degrees, resulting in a savings of 450 million watts per month.
- Reducing horsepower requirements of new trucks and equipping fleets with radial tires, resulting in a 13 percent overall fuel reduction.
- Increasing the capacity of trailers to reduce trips from distribution centers to stores and studying alternative methods of distribution in order to minimize or eliminate empty trailer mileage.

The industry analysis also notes that the movement of food from its source to various distribution centers and finally to the consumer at the stores is perhaps one of the most important factors to be considered in keeping prices down.

The only method a food retailer has for keeping prices low is through efficiencies in buying, distributing and handling products. Any substantial disruption of measures utilized in achieving these efficiencies and in responding to consumers would have an adverse impact on national interests, the study concludes.

—Bureau of Domestic Commerce



WHAT YOU CAN EXPECT—*These are the estimated fuel oil savings which bill payers in different areas of the United States could achieve by lowering their home thermostats by six degrees during the winter months. Actual quantities of fuel saved would be much higher in the northern regions, because total consumption there is enormous compared to shaded areas in this NOAA map.*

Six Degrees Less Over Five Months Equals 15-20 Percent Fuel Savings

Use of heating fuel in the United States could be cut 15 to 20 percent during the winter months from November through March by lowering thermostats six degrees to achieve a national average of 68 degrees Fahrenheit, according to Commerce's National Oceanic and Atmospheric Administration.

NOAA's Environmental Data Service noted that in the northernmost states, the lower indoor temperature settings would reduce heating fuel use during winter months by 11 to 15 percent. The percentage saving realized increases in warmer regions, reaching more than 50 percent in the southernmost portions of Florida, Texas and California. However, the actual quantities of heating fuel saved would be much greater in cold areas than in warm regions, because far more fuel is needed in such areas to heat buildings.

The Environmental Data Service's statistics also can be used to estimate the percentage of heating fuel saved during the critical winter months for each degree that home thermostats are lowered. For example, the average householder in Bismarck, N.D., can reduce use of fuel for heating by 2 percent for each degree that the home thermostat is lowered. Average winter savings for each degree of lower indoor temperature would be 3 percent in Pittsburgh; 4 percent in Portland, Ore.; and more than 5 percent in Columbia, S.C.

The calculations employ a statistic called the heating degree day, a measure of fuel consumption widely used by heating engineers. In the past, heating degree day statistics have used a daily mean temperature of 65 degrees as a base. The daily mean temperature is obtained by adding the high and low temperatures for the day and dividing by two.

When the daily mean temperature is 65 or above, most buildings require no heat to maintain an inside temperature of 70 degrees. Each degree of daily mean temperature below 65 is counted as one heating degree day. On a day with a mean temperature of 35 degrees, 30 degree days are accumulated during the 24-hour period. For every additional degree day, more fuel would be needed to maintain an indoor temperature of 70 degrees. A day with a mean temperature of 35 degrees—30 degree day —would require twice as much heating fuel as a day with a mean temperature of 50—a 15 degree day.

To calculate fuel savings for each degree of indoor temperature setting reduction, divide the percentage reduction shown for the locality by six. At Bismarck, N.D., for instance, dividing the 12 percent reduction shown in the table by six produces an estimated fuel saving of two percent for each degree the thermostat is lowered during winter months. —*NOAA*

Petroleum Export Licensing System Covers Four Items

A new system has been established for licensing of petroleum fuel exports. It begins with the first quarter of 1974 and includes country quotas for certain products.

"The licensing system is designed to assure continued availability of limited domestic supplies while preserving historic trade patterns," Secretary Dent said in announcing the system. "Exports of the licensed products represent small fractions of U.S. demand and U.S. imports of these commodities. In the product groups now also subject to quotas, total allowable exports amount to less than four-tenths of one percent of daily domestic consumption."

The system, which replaces an interim licensing procedure begun Dec. 13, provides for country quotas for gasoline and blending agents, aviation gasoline, distillate fuel oils, and residual fuel oils.

For these four items, exporters will receive letters of entitlement specifying the quantities of each commodity for which they may apply for export licenses during the first quarter, based on their histories of exports during 1971, 1972 and the first half of 1973.

Kerosene, jet fuel, carbon black feedstock oils, propane, butane and natural gas liquids will be licensed 100 percent against contracts calling for shipments during the quarter, but may be placed under quota at any time if licensing for export exceeds historical export levels. The only substantive change from the licensing procedures announced Dec. 13 is the addition of carbon black feedstock oils as a separate item to the licensed list.

Crude oils will not be licensed for export except when it can be demonstrated that the export involves an interchange which will not affect the total quantity or quality of domestic petroleum available.

Licenses issued during the first quarter will be valid for 60 days, except that no license will be valid beyond April 30.

To allow for contingencies, including some participation by exporters who have no history of exports during the base period but can demonstrate particular hardship, 5 percent of each commodity quota will be set in reserve before historical shares are determined.

Details are included in Export Administration Bulletin No. 109. The bulletins are available by subscription through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce District Offices.

Petroleum Industry's Value-Of-Shipments Listed In New Census

Operators of the nation's petroleum refineries reported value-of-shipments of $25.9 billion and employment of 101,000 workers in 1972, according to a preliminary report of the 1972 Census of Manufactures just issued by the Census Bureau.

The Census of Manufactures is taken at five-year intervals covering the years ending in "2" and "7".

The value-of-shipments figure, unadjusted for price change, rose 28 percent from the 1967 figure of $20.3 billion. In the same period employment fell 6 percent from its 1967 figure of 107,000.

The value-added-by-manufacture in the petroleum industry in 1972 amounted to $4.6 billion or some 2.5 percent below the figure for 1967. Value-added-by-manufacture approximates the value of products.

Compared with 1971, the value-added-by-manufacture in this industry rose three-tenths of one percent. The '71 figure is based on the Bureau's Annual Survey of Manufactures which is a sample survey.

The value-of-shipments figure in the preliminary report includes primary and secondary activities as well as miscellaneous receipts of the establishments in this industry. Among the leading products of the industry, motor gasoline accounted for $12.7 billion representing an increase of 33 percent from 1967.

"Petroleum Refining and Lubricating Oils and Greases," MC-72 (p)-29A-1 provides information on employment, payrolls, value of products shipped, value-added-by-manufacture, cost of materials, new capital expenditures and inventories for states as well as for the nation as a whole.

It is available from the Publications Distribution Section, Social and Economic Statistics Administration, Washington, D.C. 20233.

Ships With Fuel Problems To Get Help From Maritime Administration

The Maritime Administration has expanded its activities to assist the maritime industry in resolving problems arising from fuel shortages. This assistance is being rendered at the regional levels as well as from Washington headquarters.

In anticipation of difficulties that will be encountered in securing bunkers and obtaining adequate fuel, Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, said in an advisory to the industry, that Maritime's four regional offices are prepared to try to help.

"In order that we may represent your interests, it is important that we keep abreast of the fast-moving energy shortage developments and their impact on the maritime industry," Blackwell said. The Maritime Administration will continue to contact vessel operators, shipyards, and port interests seeking information on a regular basis regarding fuel shortages, fuel conservation measures, port delays and other matters pertaining to vessel construction, repair and operation.

Blackwell praised the maritime community for its energy-saving efforts in response to the fuel shortages, noting that conservation measures adopted by shipping lines, shipyards and port operators have assisted the nation in reducing energy demands in this time of shortages.

Wallace T. Sansone, Deputy Director of Maritime's Office of Domestic Shipping, is coordinator of the agency's fuel operations project.

Ship operators with problems are requested to contact the regional office in the area of the corporate headquarters. Regional Maritime representatives handling energy problems are:

Charles Clausen, Office of Eastern Region Director, 26 Federal Plaza, New York; Olin M. Edwards III, Office of Central Regional Director, 701 Loyola Ave., New Orleans; Leigh Miller, Office of Western Region Director, 450 Golden Gate Ave., P.O. Box 36073, San Francisco; Louis E. Ervin, Chief, Division of Great Lakes Shipping, Office of Domestic Shipping, Maritime Administration, Washington, D.C.

Computerized Monitor System To Save Energy For New Containership

A new computerized monitoring system is keeping watch over the performance of the engines and equipment of the *President Johnson*, American President Lines' newest containership, which recently made its maiden voyage.

Developed for the Maritime Administration, the network of more than 200 automatic sensors tied together by a computer will add to the ship's operating efficiency by detecting variations from normal operating conditions.

"This system will provide timely information on machine wear and tear, thus allowing its owner to get maximum efficiency from the equipment," says Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs.

In addition to saving money, Blackwell adds, the new system will aid in reducing the ship's fuel consumption.

Called VIDEC, for Vibration and Deviation Concept, the system was developed for the agency by a team of professors at the state University of New York Maritime College. The system, Blackwell points out, is similar to those already developed in the electrical power, aviation, and automotive fields.

It was further refined and constructed by the Raytheon Co. and was installed aboard the *President Johnson* by the vessel's builders, the Ingalls Shipbuilding Division of Litton Industries.

Fully automatic, the system monitors critical performance variables associated with shipboard machinery. Readings are processed by a computer and displayed on a television-like display console in the engineroom.

In addition to indicating when variations occur, the system can log the data it generates, making it possible to monitor normal wear and tear.

With this information, Blackwell points out, the ship's engineers can better schedule preventive maintenance, thus further reducing costs and eliminating lengthy delays for repairs.

Blackwell estimates that the use of VIDEC can save up to 6 percent in vessel fuel consumption, which can amount to 1500 tons per year.

Blackwell notes that the VIDEC project is part of an ongoing Maritime Administration research program to provide the automated equipment that will permit unmanned engineroom operations aboard U.S.-flag ships, while still permitting them to meet the stringent safety regulations of the U.S. Coast Guard and the classification societies.

Specifications For Energy Labeling Are Proposed

Proposed specifications for labeling air conditioners to show their energy consumption as the first step in a program of energy efficiency labeling are ready to be published in the Federal Register.

The proposed specifications describe procedures for testing and labeling room air conditioners. Information on the labels will permit consumers to compare the efficiency.

Manufacturers, retailers, consumer groups, and others are invited to participate in development of final specifications by submitting written comments or suggestions in four copies to the Assistant

Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230, within 30 days after publication.

The specifications were developed by Commerce's National Bureau of Standards.

Ferrous Scrap Export Quotas, Allocations Set For First Quarter

Export quotas on ferrous scrap for the first quarter 1974 and allocated quota shares to individual exporters were announced by Secretary Dent.

Under the allocations, which are based on statements of past participation in ferrous scrap exports (base period: July 1970-June 1973), exporters are entitled to receive validated licenses for their proportionate shares of the quotas available to 27 individual countries and the European Community.

At the request of the European Community, however, the entire quota of ferrous scrap for shipment to member countries has been divided between Italy and the United Kingdom in a ratio of approximately seven to one.

In addition to this country quota share allocation, each exporter may only export allocated quantities of "Type A" ferrous scrap (No. 1 heavy melting steel scrap; No. 2 heavy melting steel scrap; No. 1 bundles steel scrap; and iron scrap) although he has the option of shipping it to any country for which he has been allocated a quota share, provided he does not exceed the country total allocation.

Exports of "Type B" scrap (those types not categorized) are subject to country quotas but not to limitations as to type of scrap.

Individual foreign country quotas are listed in Export Administration Bulletin No. 108, Supplement No. 1, available by subscription through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.,

Plant, Equipment Outlays Expected To Increase 12 Percent This Year

Businessmen are projecting a 12 percent advance in expenditures for new plant and equipment in 1974, an annual survey by the Bureau of Economic Analysis shows.

The survey, conducted in late November and December, notes that outlays are expected to total $112.1 billion in 1974. The latest estimate for capital outlays in 1973 is $100.1 billion, about 13 percent above 1972 investment.

Although survey responses were received after the announcement of the Arab oil embargo, its impact on these investment expectations cannot be appraised.

New plant and equipment increases the efficiency and capacity of the nation's industrial sector, and the process of setting up new facilities provides impetus to the economy. The magnitude of these investment outlays is also considered a barometer of business confidence.

Many of the largest increases in capital outlays planned for 1974 are in industries that produce items that have been in short supply. These include paper, chemicals, some metals, and petroleum.

Capital expenditures by manufacturers are expected to total $44.4 billion in 1974, a 17 percent increase over 1973, while nonmanufacturing industries project a 9 percent gain to $67.7 billion.

Paper companies plan a 31 percent increase following a 37 percent advance in 1973. In petroleum, the projected increase is 27 percent compared with 3 percent last year. Chemical companies are projecting a 21 percent increase on top of a 25 percent advance in 1973.

In durable goods manufacturing, the largest increases are scheduled in primary metals, 25 percent; motor vehicles, 20 percent; and non-electrical machinery, 14 percent.

Among the nonmanufacturing industries, the largest relative increases are scheduled by gas utility firms, 18 percent, and railroads, 17 percent. Electric utilities expect a 16 percent increase. Smaller gains are expected by mining, 14 percent, and communications and commercial firms, 6 percent.

Airlines expect a decline of about 10 percent.

—Bureau of Economic Analysis

'73 Personal Income Showed Gain

Personal income for 1973 amounted to $1035.5 billion, a gain of $96.3 billion or 10.3 percent above 1972, according to Commerce's Bureau of Economic Analysis. The gain in 1972 was 8.8 percent.

Wage and salary disbursements increased 10.1 percent, and accounted for two-thirds of last year's personal income gain. The increases ranged from 8.3 percent in government to 11.5 percent in commodity-producing industries.

Among nonwage incomes, farm proprietor's income rose $6.6 billion and registered the highest rate of growth—32.7 percent. Transfer payments registered the strongest dollar gain—$14.5 billion, or 14.1 percent.

Wage and salary disbursements for December gained $5.9 billion, with all major groups advancing. The increase in November was $6.6 billion. Commodity-producing industries rose $2.3 billion, compared with $3 billion in November. Distributive industries were up $1 billion, little changed from the $1.2 billion gain in November. Services increased $1.7 billion, compared with $1.2 billion in November. Government payrolls increased $.9 billion, $.3 billion less than the November increase.

Manufacturing payrolls were up $1.1 billion, as employment and average hourly earnings rose and the work week showed little change. Fabricated metals and rubber industries were down somewhat, but all other industries remained stable or showed gains. The largest increases were in lumber, machinery, food, and a number of the primary metals industries.

The continued uptrend in regular disbursements of dividends, together with a large volume of year-end extras and specials, pushed total dividends up $14.1 billion in December.

Farm proprietor's income continued very strong and was $.8 billion above the November level.

Japanese Fishcake Could Provide U.S. Food Processors New Product

Take a tip from the Japanese. They have a way of preparing fish that, properly adapted to American preferences, would provide the American public with a tasty high protein, low calorie food, offer fishermen an incentive to harvest now unused fish species and furnish the food-processing industry with an attractive new product.

This is the conclusion of a study made by Commerce's National Oceanic and Atmospheric Administration (NOAA) and Japanese scientists into the possibilities of Kamaboko-type products. The scientists—David Miyauchi and George Kudo of NOAA's National Marine Fisheries Service in Seattle, Wash., and Minoru Okada of the Tokai Regional Fisheries Research Laboratory in Tokyo—believe such products can be adapted to American tastes, resulting in an increased consumption of fish by the U.S. consumer.

Kamaboko is a fishcake developed in Japan prior to the Fifteenth Century. Kamaboko and fish sausage are produced first by grinding raw fish muscle with salt, starch, sugar, and monosodium glutamate for flavoring and second by heat pastuerizing. These products are marketed in a variety of forms, textures, flavors, and colors. Kamaboko is described variously as a Japanese fish paste and as a fish product resembling meat loaf.

There are three main types of Kamaboko: Kamaboko used as a specific term, a fine-textured white elastic fishcake mounted on a small wood board and cooked by steaming or boiling; Chikuwa, a tubular-shaped fishcake cooked by broiling; and Satsumaage, a deep-fat-fried fishcake made in various shapes such as a ball, square, disk or cylinder.

In making Kamaboko, special machines separate the muscle from the skin and bones of headed and gutted fish. After the muscle is washed with chilled water to remove blood, flesh pigments, mucus, and fat it is mixed with other ingredients while being ground into a homogeneous sticky paste in cooled stone mortars.

While cool the paste is shaped by machine. After shaping, the paste is heated. The ingredients used in Kamaboko vary according to type of product, cost, and locality. Salt content ranges from 2.5 to four percent. Sugar and monosodium glutamate most commonly are used for flavoring. Sodium in-osinate, specially flavored rice wine, or flesh extractives also are used to intensify the flavor. Egg white is added to improve glossiness, and when necessary starch is added to increase elasticity.

Chilling, rapid handling, thorough cleaning of the fish, and good sanitation practices are essential for minimizing the microbiological load of minced flesh. Starch, and particularly potato starch, is a primary source of thermotolerant bacteria responsible for spoilage. Commercially, Kamaboko is cooked to an internal temperature of above 167 degrees Fahrenheit to give it a good keeping quality. Contamination by microorganisms in the air is prevented by packaging before or immediately after cooking.

The annual fish catch of the U. S. is about 1.8 million metric tons, of which about 66 percent is used as food. Of this total, 40 percent is fresh or frozen, 24 percent is canned, and two percent is cured.

By contrast, the Japanese have an annual catch of about 7.4 metric tons of which 80 percent is used as food. Of the total, more than one million metric tons is used annually in the preparation of Kamaboko products and fish sausage at this time. This is more than double that used in 1958.

The rapid growth of Kamaboko consumption in Japan has resulted from a number of factors, such as: ready-to-eat types of food are convenient; appearance and flavor can easily be altered to meet consumer demands; underutilized species of fish can be used as raw materials; new machines permit more efficient processing and improved packaging; quality has been improved; and demand has increased for high-protein type foods.

In Japan, a distinctive eating characteristic of Kamaboko is its elastic quality, which the Japanese call "ashi." This quality depends on such factors as the species of fish used, freshness, and processing techniques. In addition, ashi affects the food's appearance, especially its glossiness, and its keeping quality.

Elasticity of Kamaboko made from different species of fish varies greatly. Fish having good gel-forming capability irrespective of freshness are regarded as the best raw material. Some fish rapidly lose this characteristic soon after they are caught. Black marlin or croaker are said to make a very elastic product two or three weeks

after being iced. Small pelagic fish and fatty fish make products of low elasticity.

Elasticity is said to be best when the paste is rapidly heat pasteurized at temperatures not lower than about 149 degrees Fahrenheit. The elasticity can be improved significantly by washing the flesh before grinding.

Dr. Miyauchi explains that one of the problems involved in adapting Kamaboko-type products to the tastes of the American public is the elasticity or rubbery quality, which generally among Americans is regarded as undesirable. Research programs are in progress to develop products which would not have the elastic quality, and otherwise to produce fish products blended with other meats that Americans would regard as palatable. Work has been done with menhaden and carp, as well as with species commonly used as food.

Kamaboko and fish sausage products are rated as higher in protein and lower in calories than many processed meat products such as wieners and bologna. Scientists who have worked with these products say the flavor, texture, and appearance of the Kamaboko-type products can easily be modified to suit the preferences of the U.S. consumer by blending various species of fish and by varying the other food ingredients. Such products, they add, can improve nutrition, more efficiently utilize available fish resources, and create new opportunities to exploit now-unused fish species.

Kamaboko products are processed by a few plants on the U.S. West Coast and in Hawaii, which cater to the Orient. *—NOAA*

Surveys To Aid Safe Navigation From Alaska Pipeline Terminal

A five-year program of surveys is being undertaken in the waters of Washington State and British Columbia to assure safe navigation for the giant supertankers that will deliver oil from the Alaskan pipeline terminal to refineries near the U.S.-Canadian border.

The surveys, which are to be made by the U.S. in cooperation with the Canadian Government, will begin in mid-February in Rosario and Haro Straits in the area leading to the refinery at Cherry Point, Washington, near the border. Future refineries probably will be built in this vicinity.

Data will be provided by the surveys for more reliable predictions of tides and tidal currents in the often hazardous and restricted waters of this area. The big tankers will have such a deep draft that they will require accurate predictions of the stages of the tide, as well as depth soundings, in order to navigate many of the waterways safely.

When the 800-mile pipeline from Alaska's North Slope to its nearly ice-free port of Valdez is completed, possibly in 1976, it is expected to carry eventually up to two million barrels of oil a day for delivery to the tankers.

Two American ships will be involved in the project, the McArthur, a coastal survey vessel of Commerce's National Oceanic and Atmospheric Administration (NOAA), and the Onar, an oceanographic vessel of the University of Washington. Preliminary surveys for the project were carried out last fall by the McArthur.

The surveys will continue in 1975 in the Rosario and Haro Straits area leading to the Cherry Point refinery. Rosario Strait is the main channel which divides the mainland and port cities from the San Juan Islands. Haro Strait separates the San Juans from Vancouver Island.

Work will proceed in 1976-77 in the Strait of Juan de Fuca and possibly further north into the Strait of Georgia. Plans are also being programmed for 1978-79 for tide and current surveys in the central basin of Puget Sound to determine the drift of sewage and other wastes deposited in the waterways by Seattle and other communities.

The McArthur will maintain a five-month schedule of surveys, working each year from mid-February to the end of April and from early September to mid-November. During the summer months, it will conduct tide and current surveys in Cook Inlet, Alaska.

The ship is one of the NOAA Fleet's modern coastal survey vessels. It is operated by the National Ocean Survey, is commanded by Commander Austin Yeager of Pelham, Alabama, and carries a complement of 36 officers and crew. It is 175 feet long, has a displacement of 995 tons, and is based in Seattle.

In the work to be undertaken henceforth, current-measuring meters will be planted in the waterways by the National Ocean Survey, the University of Washington, and the Canadians. Gages will be installed along the shores to record the rise and fall of the tide. The McArthur will be assisted in the tide gage work by the National Ocean Survey's Pacific Tide Party.

The NOAA Ship Davidson last year surveyed for submerged navigational hazards a deep draft channel extending from the Strait of Juan de Fuca through Rosario Strait. The channel may be used by the tankers. The area was examined up to a depth of 90 feet.

The marine data will be processed by the National Ocean Survey's oceanographic facilities in Rockville, Maryland, NOAA's Pacific Marine Environmental Laboratories, the University of Washington in Seattle, and the Canadians in Victoria.

Tidal information will also be used to determine whether the sea level is rising or falling, and to what extent. *—NOAA*

City Government Spending, Revenues Seen On Increase

Spending by city governments soared to $43.9 billion in fiscal 1971-72, an increase of $4.8 billion, or more than 12 percent, over the total for a year earlier.

At the same time, the revenues of city governments likewise increased, reaching $42.2 billion, or a rise of $4.8 billion, or 13 percent, over the total for a year earlier.

This information is contained in a report on city government finances prepared by Commerce's Bureau of the Census.

The report showed that $29.8 billion or about two-thirds of all city government outlays, in 1971-72 was for current operation. Capital outlays amounted to $8.2 billion, interest on debt, $2.1 billion, insurance benefits and repayments, $1.3 billion, and cash assistance payments, $1.7 billion.

Outlays for personal services in 1971-72 totaled $18.1 billion, or about 41 percent of all municipal expenditures.

Broken down according to function, the largest spending item was for education, which totaled $5.8 billion. Other big spending items by the cities were: police protection, $3.9 billion; public welfare, $3 billion; highways, $2.8 billion; fire protection $2.2 billion; hospitals, $2 billion; and sewerage, $2 billion.

On a percentage basis, outlays for education increased in the year from 14.9 to 16.3 percent; and for public welfare from 5.3 to 8.5 percent. Meanwhile expenditures for roads and streets dropped from 11.8 to 7.7 percent, and for fire protection from 7.4 to 6.2 percent. Outlays for police protection remained constant at 10.5 to 11 percent.

City-imposed taxes yielded $17.1 billion of the revenue in 1971-72, or about half of all general revenue. Property taxes were the predominant tax revenue source, yielding $11 billion.

City governments have been receiving an increasing proportion of their revenue from Federal and State grants-in-aid and shared taxes. In the last decade, such intergovernmental revenue has jumped from 20.6 percent to 32.7 percent of total city general revenue. On the other hand, the proportion from property taxes has dropped from 43.3 to 31.5 percent. The amount of money from the Federal Government rose 34.5 percent between 1970-71 and 1971-72.

At the end of 1971-72, municipal indebtedness totaled $52.5 billion, or 7.3 percent more than a year earlier.

(Copies of the report "City Government Finances in 1971-72," GF 72, No. 4, are available for $1.30 from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402 and from Commerce District Offices in major U. S. cities.)

Construction Industry's Receipts Gain 31 Percent In Five-Year Period

The General Contractors, Industrial Buildings, and Warehouse Industry had total receipts of $8.9 billion in 1972, of which $8.8 billion represented receipts for construction work. This accounted for an increase of 31 percent over 1967, according to a preliminary report on the Census of Construction Industries prepared by Commerce's Bureau of the Census.

The industry includes general contractor establishments engaged in construction of industrial buildings and warehouses, and also of factory buildings.

The report showed that payment for construction work subcontracted to others in 1972 totaled $3.8 billion, leaving net construction receipts of about $4.9 billion. Total average employment in the industry dropped four percent from 1967 to a total of 178,000.

Total payroll for 1972 amounted to $1.8 billion. What is defined as "value added" totaled $2.8 billion in 1972, which was 33 percent more than value added in 1967. Value added is total receipts less payments for construction work subcontracted to others, and payments for materials, components, and supplies.

The 1972 census of construction industries was conducted jointly with censuses of mineral industries, manufactures, retail trade, wholesale trade, and selected service industries.

The final report also will present limited data for construction establishments with no payroll during 1972 and for all construction establishments. *—Census Bureau*

December Housing Starts Decreased

Preliminary estimates indicate that privately owned housing starts in 1973 were 2,041,600, which was 13 percent below the 1972 total of 2,356,600. December starts were at an annual rate of 1,355,000 units on a seasonally adjusted basis. The December 1972 rate was 2,369,000 units.

The preliminary estimate of privately owned housing units authorized by the 14,000 permit-issuing places in 1973 was 1,771,300. This was 20 percent below the total of 2,218,900 in 1972. December authorizations were at a seasonally adjusted annual rate of 1,231,000, compared with a rate of 2,399,000 in December 1972.

Business Statistics Report Offers Hindsight To Improve Foresight

If you believe perfect hindsight will improve your foresight, you will find intriguing patterns formed by data in the just published "1973 Business Statistics."

Issued by Commerce's Bureau of Economic Analysis, the 1973 edition is the nineteenth in a series of biennial volumes providing historical data for the 2,500 series that appear in the statistical section of the Bureau's monthly magazine, *Survey of Current Business.*

Over the quarter century that has passed since 1947, the U.S. economy as measured by the gross national product has grown almost sixfold while:

- Average weekly earnings of factory workers more than tripled and consumer prices doubled;
- Domestic crude oil production doubled and the price more than doubled, oil imports increased ninefold;
- Bituminous coal production regained the 1947 level after having dropped to two-thirds of that in 1954, and coal prices have more than doubled;
- Local transit lines lost 13 billion revenue passengers, and carried only five billion fares in 1972;
- Railroad passenger traffic dropped 80 percent, airline traffic grew nineteenfold, and new car purchases increased 50 percent on a per capita basis.

The new volume provides comprehensive data on the gross national product, national income, and the U.S. balance of international payments, as well as data on plant and equipment expenditures, business sales, inventories and orders, prices, employment and unemployment, construction, banking and finance, transportation, and many other industries and commodities.

Annual data for most of the series are shown back to 1947. Quarterly data back to 1962 are provided for those series ordinarily published on a quarterly basis, and monthly figures are shown back to 1969. For about 400 of the more important series, monthly or quarterly data back to 1947 are also shown in an appendix.

The 1973 edition of Business Statistics is available for $5.15 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

'Mini-Guide' Is Map To Economic Censuses

A "Mini-Guide" designed to provide information on the 1972 economic censuses has been prepared for businessmen and others interested in Census Bureau data.

The information is presented in a 41-page booklet that furnishes detailed data on economic censuses dealing with retail trade, wholesale trade, selected service industries, construction industries, manufactures, mineral industries, transportation, outlying geographic areas such as the Commonwealth of Puerto Rico, the Virgin Islands, and Guam.

A prefatory statement explains that for persons using census data regularly, the booklet offers a concise reference guide to the 1972 economic censuses and the publication program.

The statement adds that the booklet will be a source of information on the economic censuses program for those who use demographic census data but are unfamiliar with the statistics available from the economic censuses, and related programs.

Copies of the "Mini-Guide" may be obtained for $1.00 each from the Publications Distribution System, Social and Economic Statistics Administration, Washington, D. C. 20233. Check or money order should be made payable to "Superintendent of Documents."

Business Calendar

Feb. 5-8—Washington—29th Annual Conference of Reinforced Plastics Composites Institute at Shoreham-Americana Hotel.

Feb. 20-21 — New York — Fabric flammability seminar, sponsored by Apparel Product Flammability Committee, American Apparel Manufacturers Association. For information, AAMA, Suite 800, 1611 N. Kent St., Arlington, Va. 22209.

Mar. 11-15—Los Angeles—Western Metal and Tool Exposition and Conference (WESTEC). For information, Thomas C. Akas in Dearborn, Mich. 313-281-1500; or Mrs. Jeanne Hogner in Los Angeles, Phone: 213-884-1791.

Mar. 29-31 — Durham, N.H. — Northeast Industrial Development Association advanced seminar at the University of New Hampshire. For information, Robert L. Kiley. Phone: 310-749-1251.

Shipbuilding Orderbook Passes $3.3 Billion Value

The active privately owned sector of the U.S. merchant marine consisted of 571 vessels, comprising more than 13 million deadweight tons, on Dec. 1, the Maritime Adminstration's new Merchant Marine Data Sheet shows. The active private fleet consisted of 177 freighters, 233 tankers, 26 bulk carriers, 129 intermodal ships, and six combination passenger-cargo ships.

Eighty-eight merchant ships, totaling more than 6.2 million deadweight tons, were under construction or on order from American shipyards as of Dec. 1. Valued at more than $3.3 billion, the shipbuilding orderbook included 63 tankers, 15 intermodal carriers, eight dry bulk carriers and two special-type vessels.

INTERNATIONAL COMMERCE REPORT

- **Reports from three U.S. overseas missions**
- **Review of world trade with USSR, East Europe**
- **Economic reports from four countries**
- **Monthly listing of export promotions abroad**

U.S. Trade Share Improves In Many Markets

Import demand of this country's leading trading partners continued strong during the latest 12 months for which data are available, generally September or October 1973. Almost all the countries listed in the accompanying table reported steep increases in the value of their imports during the period.

Similarly, most of the leading traders stepped up their purchases of goods from the United States; in half, the rise was 30 percent or more. As a result, the United States improved or maintained its position in the majority of the listed markets.

The vigorous expansion in demand for goods, both from the United States and other sources, stemmed from the high levels of economic activity and from greater requirements for agricultural products due mainly to crop shortfalls. The sharp rise in prices of internationally traded commodities, as the supply situation tightened, contributed importantly to the overall growth in import values.

To ensure continuity with previous reports in this series, trade data used in the analysis are expressed in U.S. dollars reflecting exchange rates prevailing in each period. Non-dollar reserves are measured in the same manner. As a result, changes based on these dollar values are inflated (deflated) for countries whose currencies have appreciated (depreciated) relative to the dollar.

The world's top ten trading nations all boosted imports from this country substantially, in virtually every case by at least one-fourth. The U.S. share improved in four—France, the Netherlands, Canada, and Belgium-Luxembourg. By contrast, a year ago the U.S. standing weakened in each of the ten prime markets as their imports from this country, with few exceptions, showed small gains or actually declined.

In France, the strengthening of the U.S. position resulted from a steep rise of 45 percent in purchases from this country during the year ending October 1973. Arrivals of aircraft were especially buoyant, but those of animal feedstuffs, soybeans, power generating machinery, and electronic computers also contributed to the overall U.S. gain.

Sharply stepped up receipts by the Netherlands of various agri-

'73 Trade In Surplus

U.S. trade figures for 1973, released by the Commerce Department as this issue went to press, show that exports exceeded imports by $1.7 billion—the first U.S. trade surplus since 1970. Exports, excluding military grant-aid, reached $70.8 billion and imports, $69.1 billion.

A detailed review of the 1973 figures by the Department's International Trade Analysis Staff will be presented in a forthcoming issue.

cultural commodities provided the primary impetus in raising total imports from this country by more than one-third. Corn, soybeans, animal feedstuffs, and wheat were the most important products in this advance.

The U.S. share also expanded in Canada, spurred again by a greater inflow of automotive products. Cars and trucks as well as parts and engines shared in this increase. At the same time, advances were also recorded in purchases of aircraft and food from this country.

In Japan, on the other hand, the U.S. share weakened after holding even for close to a year. Although arrivals from the United States soared by half, those from other sources climbed even more rapidly. Imports of U.S. lumber, corn, wheat, soybeans, and steel scrap all stood substantially above their levels of the previous 12-month period. Aircraft was one of the few items to post a sizable decline.

Similarly, the share dipped in Germany and the United Kingdom despite a one-third rise in their imports from the United States. The inflow into both markets was substantially greater in the case of American corn, chemicals, electronic computers, and electrical equipment. For Germany, soybeans were also strong but defense items decreased sharply. For Britain, U.S. coal and aircraft showed modest reductions.

Among other developed countries, Spain and Australia boosted their purchases from the United States more rapidly than from other sources. Increased arrivals of corn, animal feedstuffs, and aircraft paced the Spanish advance and helped raise overall imports from this country by half. Imports into Australia of a wide variety of U.S. goods, including motor vehicle and tractor parts, wood, organic chemicals, and power generating machinery, climbed notably, more than offsetting the decline in aircraft.

Turkey, Finland, Norway, Austria, and Ireland each boosted their imports of U.S. goods by two-fifths or more, resulting in an improvement in this country's standing. In Denmark, Yugoslavia and Portugal, however, despite greater arrivals of American goods, the U.S. share declined.

Mexico, this country's largest market among the developing nations, stepped up its purchases from the United States slightly faster than from other sources. Higher imports of motor vehicle and tractor parts, telecommunications equipment, steel scrap, and corn contributed to the rise.

Among the developing countries of East Asia, purchases from the United States generally advanced strongly, bringing widespread share gains. In Malaysia, U.S. aircraft were the major factor in the import advance of two-thirds. Planes also aided the U.S. performance in the Korean market but wheat, cotton, and electronic components contributed as well. Hong Kong and Taiwan each increased their imports from this country by more than two fifths. In the former, the main impetus came from greater arrivals of diamonds and cotton; in the latter, from electronic components and steel scrap. The U.S. position also improved in Indonesia and the Philippines, but, contrary to the

World Mar

The 48 markets shown below accounted for 91 percent of 1972 imports

Values in millions of dollars — Published

Country	1972 Imports			1973 Imports January through latest month				Import change in latest available 12-month period*		Reserves at end of third quarter	
	From world	From U.S.	U.S. share %	Latest month	From world	From U.S.	U.S. share %	From world %	From U.S. %	1972	1973
Germany, Fed. Rep.	39,763	3,339	8.4	Nov.	50,313	4,161	8.3	+ 35	+ 34	24,538	35,251
United Kingdom	28,041	2,949	10.5	Nov.	35,690	3,614	10.1	+ 36	+ 31	6,090	6,382
France	26,715	2,154	8.1	Oct.	29,421	2,469	8.4	+ 36	+ 45	10,019	11,223
Japan	23,494	5,862	25.0	Oct.	30,445	7,460	24.5	+ 56	+ 53	16,489	14,795
Canada	20,485	14,164	69.1	Nov.	23,090	16,389	71.0	+ 22	+ 26	6,221	5,720
Italy	19,282	1,592	8.3	Sept.	19,574	1,681	8.6	+ 38	+ 33	6,414	6,508
Netherlands	17,393	1,408	8.1	Aug.	15,526	1,395	9.0	+ 27	+ 35	4,906	5,462
Belgium-Luxembourg	15,607	860	5.5	Aug.	13,622	743	5.5	+ 30	+ 31	4,040	4,900
Switzerland	8,465	611	7.2	Oct.	9,197	598	6.5	+ 29	+ 26	7,405	8,151
Sweden	8,063	583	7.2	Sept.	7,436	498	6.7	+ 24	+ 16	1,402	2,365
Spain	6,631	1,048	15.8	Oct.	7,765	1,271	16.4	+ 42	+ 50	4,694	6,635
Austria	5,216	169	3.2	Sept.	5,120	166	3.2	+ 41	+ 42	2,938	3,279
Australia	5,169	1,097	21.2	Aug.	4,628	1,021	22.1	+ 24	+ 26	5,352	6,085
Denmark	5,021	357	7.1	Oct.	6,038	374	6.2	+ 41	+ 21	716	938
Brazil	4,783	1,322	27.6	June	2,831	(1)	(1)	[2]+ 29	[2]+ 24	3,348	6,462
Norway	4,332	268	6.2	Oct.	4,924	273	5.5	+ 33	+ 44	1,352	1,578
South Africa, Rep.	4,012	663	16.5	June	2,440	392	16.1	+ 4	+ 4	1,238	1,637
Hong Kong	3,902	464	11.9	Oct.	4,426	552	12.5	+ 35	+ 42	(1)	(1)
Singapore	3,383	475	14.0	Aug.	2,955	417	14.1	+ 34	+ 29	862	[3]1,135
Yugoslavia	3,233	198	6.1	Sept.	3,162	150	4.7	+ 36	+ 18	562	1,413
Finland	3,198	140	4.4	Oct.	3,515	167	4.8	+ 29	+ 49	852	571
Mexico	2,936	1,775	60.5	Apr.	1,125	682	60.6	+ 29	+ 30	1,140	[4]1,201
Korea, Rep.	2,557	647	25.3	Sept.	2,988	870	29.1	+ 55	+ 57	686	1,034
Taiwan	2,520	545	21.6	Sept.	2,546	622	24.4	+ 36	+ 42	965	1,191

Note: The countries shown above include the 48 major importers of U.S. merchandise in 1972 for which current data are available. In order to present comparable statistics for all countries, import data have been adjusted from an f.o.b. to a c.i.f. valuation for Australia, Canada, Philippines, Republic of South Africa, and Venezuela. Reserves include official holdings of gold and foreign exchange, the gold tranche position, and Special Drawing Rights in the International Monetary Fund.

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into all free-world markets and 92 percent of imports from the U.S.

quarterly

Country	1972 Imports			1973 Imports January through latest month				Import change in latest available 12-month period*		Reserves at end of third quarter	
	From world	From U.S.	U.S. share %	Latest month	From world	From U.S.	U.S. share %	From world %	From U.S. %	1972	1973
Venezuela	2,494	1,108	44.4	Mar.	694	(1)	(1)	[2]+ 15	[2]+ 16	1,436	1,654
Iran	2,410	407	16.9	June	1,555	237	15.2	+ 22	+ 9	796	984
Greece	2,355	146	6.2	July	1,846	163	8.8	+ 38	+ 36	844	1,128
India	2,240	328	14.7	June	1,360	(1)	(1)	[2]— 7	[2]— 42	1,188	[5]1,412
Portugal	2,227	198	8.9	Oct.	2,108	174	8.3	+ 22	+ 13	2,229	2,767
Ireland	2,105	161	7.6	June	1,360	95	6.9	+ 26	+ 40	985	1,074
Israel	1,983	373	18.9	Oct.	2,441	472	19.3	+ 49	+ 42	1,100	1,516
Argentina	1,905	385	20.2	.....	.....	.....	.....	+ 2	— 7	255	[6]817
Algeria	1,759	[7]116	[7]6.6	.....	.....	.....	.....	+ 44	+ 14	444	631
Turkey	1,508	175	11.6	Oct.	1,640	151	9.2	+ 42	+ 49	1,134	2,128
Nigeria	1,500	157	10.4	Mar.	490	51	10.3	— 1	— 26	382	446
Thailand	1,485	233	15.7	June	880	127	14.4	+ 21	+ 26	1,028	1,269
Indonesia	1,438	218	15.1	Jan.	172	36	20.8	+ 31	+ 37	468	897
Philippines	1,380	352	25.5	Oct.	1,408	384	27.3	+ 32	+ 34	474	867
Malaysia, West	1,350	119	8.8	Aug.	1,209	91	7.5	+ 39	+ 69	[8]886	[8]1,280
Egypt	[7]892	[7]80	9.0	June	410	(1)	(1)	[2]— 3	[2]+ 57	172	256
Peru	796	237	29.8	June	466	140	30.0	+ 11	+ 16	443	571
Morocco	767	58	7.6	July	596	51	8.5	+ 28	— 28	276	332
Trinidad & Tobago	756	140	18.5	Feb.	120	23	19.3	+ 8	+ 1	70	46
Pakistan	667	143	21.5	Oct.	764	187	24.4	[9]+ 32	[9]+ 55	260	396
Panama	438	152	34.7	June	213	75	35.3	+ 9	+ 5	795	[10]933
Costa Rica	373	123	32.9	Feb.	61	21	34.1	+ 8	+ 10	18	45
Ecuador	329	99	30.2	Sept.	356	(1)	(1)	[2]+ 8	[2]— 4	109	181
Guatemala	324	104	32.0	Mar.	86	(1)	(1)	[2]+ 7	[2]+ 7	102	214

* Compared with preceding 12-month period.
[1] Not available. [2] Import change from 1971 to 1972. [3] End of February. [4] End of August. [5] End of July. [6] End of June. [7] Estimated from partial year data. [8] Includes East Malaysia. [9] Prior to December 1971, data include the former East Pakistan (Bangladesh). [10] End of March.
Source: Official trade statistics of listed countries.
International Monetary Fund, *International Financial Statistics.*

pattern in the area, declined in Singapore despite substantially higher imports from this country.

The inflow of goods from the United States into Israel, similarly, showed a steep increase but arrivals from elsewhere climbed even faster, weakening this country's standing. The U.S. share also declined in Iran and Nigeria.

Reserves continue climb

As of Sept. 30, 1973, official reserves of this country's major trading partners totaled $156 billion, a rise of more than one-fifth from their level at the same time the previous year. Part of the increase was attributable to the higher value of reserve assets other than U.S. dollars resulting from the devaluation of the dollar and from other currency realignments during the period. Although the developed countries, especially Germany, accounted for the bulk of the increase, developing areas expanded reserves nearly three times as rapidly.

The increase of nearly $11 billion in German holdings represented more than half the total gain recorded by the economically advanced nations. Nearly four-fifths of Germany's gain occurred in the first quarter of 1973 as the central bank intervened in the foreign exchange markets to bolster weaker currencies and the trade surplus widened. In the third quarter, the same factors contributed to another substantial improvement.

Brazil reported a large rise in holdings to $6.5 billion, nearly double their level of a year earlier. A favorable reversal in the trade balance, aided by high world prices for its exports, as well as rising capital inflows largely accounted for the increase.

Gains of more than $1 billion in reserves were reported by both Spain and France. Spanish holdings rose throughout the 12-month period as expanded earnings from tourism helped offset the rising import bill and capital inflows climbed sharply. In France, reserve increases were limited to the first and second quarters of 1973 and resulted primarily from support operations in exchange markets.

Holdings by Turkey and Sweden also advanced significantly, rising by nearly $1 billion. Turkey benefitted from a continued high level of workers' remittances, while an improved trade balance and support operations in foreign exchange markets contributed to the Swedish increase. At the same time, Belgium, Yugoslavia, Switzerland, and Australia reported notable improvements in reserves.

Japanese holdings declined in the final three quarters, resulting in a loss of $1.7 billion for the 12 months. The largest outflow occurred during April-June 1973 due to continued deterioration in the trade account, a reduction in the positive short-term capital balance, and a large outflow of unrecorded funds. Canada also reported a loss in reserves although not so sizable as that of Japan. The largest decrease was in the third quarter of 1973, partly because of the outflow of interest-sensitive funds.

Several developing countries enhanced their reserve positions substantially. Those of Argentina more than tripled while Indonesia, the Philippines, and Korea expanded theirs by more than half.

IN MOSCOW—*At Spasso House, U.S. Ambassador's residence, Mission Director Turner (left) exchanges greetings with official of Ministry of Foreign Trade.*

U.S. Business Executives See Soviet Market Inviting

Twelve top executives representing nine major U.S. corporations, visiting Moscow recently in an effort to promote trade, have returned full of optimism over market prospects for a variety of U.S. goods, and also for the purchase of certain Soviet products by U.S. companies. As a result of their visit, all mission members are planning follow-up trade visits to the USSR.

The executive-level trade mission, the first of its sort to the Soviet Union, was organized by the Commerce Department's Bureau of East-West Trade. It was designed to bring about direct contact between senior executives of U.S. firms and high-ranking Soviet officials in the appropriate Ministries, State Committees and Foreign Trade Organizations. Each mission member was in Moscow for two or three days during the period of Nov. 12 to 21.

Henry B. Turner, Assistant Secretary of Commerce for Administration, served as director of the mission, and Warren S. Rustand, a Commerce Department White House Fellow, served as deputy director. "This mission represented part of the ongoing detente in the economic area that is taking place between the United States and the Soviet Union," Turner said. He added that groundwork for the mission was developed during the cabinet-level visit to the Soviet Union (September-October) by Secretary of the Treasury George P. Shultz, Secretary of Commerce Frederick B. Dent, and Under Secretary of State for Economic Affairs William J. Casey.

While in Moscow, Turner and several mission members were interviewed by Soviet media, and the group received wide press coverage. 'We had every indication that officials of the USSR are very receptive to this type of mission," said Turner. He noted that the members represented a broad spectrum of American industry, including rubber and chemicals, pollution control, telecommunications, agricultural equipment, computers, airport safety and control, dental and medical equipment, petroleum refining and food packaging. These industry segments were chosen following a research study which defined the most lucrative markets for U.S. equipment and technology in the USSR.

Printing Equipment Users In Colombia, Venezuela Savor Trade Mission Visit

"Pressed into ad hoc sessions because Latin industry representatives were begging for technical advice"—this description of the experience of a recent U.S. trade mission in Colombia and Venezuela catches the directness of the interest expressed to its members. They reported broad exposure to new business prospects.

Five representatives of the printing and graphic arts industry went to Cali, Bogota, and Caracas to sell equipment and materials. Their pre-arranged schedule called for holding more than 200 business appointments, touring several plants, and conducting two seminars. So interested were local equipment users, according to Mission Director David Earle of the Commerce Department, that they came in significant numbers to find answers to production problems, and to seek sources of supply—including sources for some items not represented on the mission. Additional meetings had to be arranged. In Bogota, a group session was requested by 20 representatives of

ACOPI, a Colombian small business association with special interest in the printing industry.

Wide interest in presses

Numerous inquiries centered on printing presses. Some business visitors wanted to discuss foreign backing for new printing operations complete with new equipment, technology, and financing. Several good trade opportunities, developed from the daily interviews, are being handled by U.S. Embassy commercial staffs. The mission's visit assisted the Embassy in Caracas in reviving the possibility of an immediate sale of an estimated $180,000 of new printing and auxiliary equipment to a Caracas daily newspaper. Financial terms for the transaction are now under discussion with the Export-Import Bank.

The one mission member seeking additional representation signed such an agreement. A total of 131 sales leads were developed and a 12-month sales forecast of some $635,000 was reported.

A good start

In Cali, the mission got òff on the right foot with a special invitation to visit Propal, a large paper producer. Also in Cali, there was a tour of Carvajal & Co., one of the giants of the printing industry in South America. Two more group visits were made — to Danaranjo Ltda., the second largest printer in Colombia, and to El Espectador, a major newspaper; both firms are in Bogota.

Foreign-made equipment was observed in all Colombian plants, Earle reported; however, the mission members quickly felt they represented the country which serves as chief supplier of printing and related equipment or materials to these Latin countries. They observed a receptive market for U.S. equipment and methods.

Plant visits were highly productive in that this time volunteered by mission members effected fol-

GOOD START IN COLOMBIA — *Beginning a tour of the Propal plant in Cali, mission members look on as technical director explains plant operation. Rudolph Schmid, company president, far right; David Earle, mission director, far left.*

FROM START TO FINISH — *Proceeding from step to step, mission members follow the Propal operation all the way through to the end product.*

EXPLAINS PROPOSED LAW—*In Bogota, Jorge Cardenas Nanetti, principal author of a "book law" now before the Colombian Congress, details the impact this legislation could have on the country's printing industry. From left: Dr. Cardenas, mission members Macready and Darrah, and Director Earle.*

low-up appointments between potential buyers and mission members. The visit to Danaranjo alone stimulated the company to request that the president and six of its top technicians visit the mission suite after hours for an additional follow-up round table discussion to talk of equipment needs. One mission member commented, "We consider this mission a success just for this contact alone; we achieved the exposure we were looking for."

In staging the two half-day seminars on the state of the art, mission members cooperated with Colombian and Venezuelan graphic arts associations. Director Earle observed from the proceedings that the considerable effort and time put into these seminars by mission members went a long way in representing all U.S. industry, as printing and graphic arts equipment and applications in general were discussed. Mission members were well received by the local industry wherever they went and their time was in demand during and after business appointment hours to discuss technical problems.

Book law would help

Many local businessmen are optimistic that with the passage of a law referred to as the Colombian Book Law, and particularly following the Colombian presidential election in the spring, the printing industry will really open up, Earle reported. The third Committee of the Senate is presently studying a bill to lower tariffs on all items pertaining to book and magazine publication. Therefore, it was generally felt that the mission's visit was timely, enabling U.S. equipment representatives to get in on the ground floor with their contacts.

"The Colombian market will offer a much bigger potential than most realize. Tapping this market will require continuing direct contact and the kind of effort put forth by this mission's members," the director concluded.

Participating companies and their representatives were: B. W. Darrah, Inc., Arch Macready; Direct Reproduction Corp., Samuel Sachs; Auto Graficas Export Corp., Valentin Elices; Harry H. Rogers Co., Inc., Harry Rogers; R. H. Gathman, Ltd., Joseph Elices. Director Earle is with Commerce's Office of International Marketing.

Europeans Want Labor Savers, U.S. Building Materials Mission Finds

High prevailing wage rates, high levels of inflation, devaluation of the dollar: each contributed to a lively interest by Dutch, Belgian, and Swiss businessmen in the U.S. building materials and equipment represented by a recent trade mission to the area.

Projected results of such interest in the next 12 months add up to U.S. sales estimated at more than $4 million. Immediate orders were not the principal objective of the majority of mission members, however; most were seeking sales representatives who will provide effec-

"TALKING SHOP" IN BELGIUM—*At the Centre Belge du Batiment in Brussels, mission members viewed building materials displays. From left: Roderick Grant, U.S. Embassy; Jean Raye, Centre president; and Mission Director Glenn Matson.*

tive representation over a long period. Nine of the 11 companies participating in the mission reported that they had totally or partially identified potential distribution outlets, according to Mission Director Glenn A. Matson, who heads the Commerce Department's Minneapolis District Office.

Products and services of the U.S. companies included lumber and plywood construction, mortarless concrete block systems, concrete block machinery, pumps, paints, cranes, building systems, pre-engineered steel buildings, and professional consulting services.

Products with appeal

Because of the steadily increasing wage rates in each of the countries visited, products exhibiting labor-saving features and those with an appeal to the "do-it-yourself" market attracted the most interest, Matson reported. Interest in the professional services offered by mission members was a great deal less than that shown for the tangible products, he said, explaining that the level of such services in the three countries is highly developed and the field very competitive. Nevertheless, opportunities for these firms do exist in areas of high sophistication and technology. Personal visits and observations will be required to a far greater degree than previously exhibited by this segment of the industry.

Several additional characteristics of the markets were underscored by the mission:

- Normal channels of distribution for building materials and equipment are exclusive distributorships. Maintenance and servicing facilities must be available for the products represented.
- Warehousing and transportation are readily available.
- Business credit is available from the local banks. In addition, the Eximbank has cooperative lending agreements with a number of banks.
- Electrical products should be operable on 50-cycle, 220-volt, alternating current for most parts of the Netherlands, Belgium, and Switzerland. There are local variations, however, especially in Belgium. Product specifications should be given in metric terms.
- Countries providing the most competition for U.S. products are Germany, France, and Italy.

The members' more than 300 contacts included talks with officials of government, of building and architectural associations, chambers of commerce, the Bouwcentrum (Building Trades Center) in Rotterdam, and the Centre Belge du Batiment (Belgium Building Center) in Brussels.

"We believe the mission will produce much more business than we had hoped for," said L. H. Fenters, president of the Atlantic Wholesale Co., Florence, S.C., a member of the U.S. group.

Other participants

Other companies participating, and their representatives, were: Bricon Corp., Lafayette, La., James P. Vanway; Columbia Machine Inc., Vancouver, Wash., Carl Vraspir; FCE-Dillon, Inc., Akron, Ohio, Anthony Vilar; FMC Pump Division, Indianapolis, John Sanich; Glidden-Durkee Div., SCM Corp., Cleveland, Ohio, Ralph L. Juda; Koehring Co., Milwaukee, Jean Dumas; Arthur Cotton Moore Associates, Washington, D.C., Arthur C. Moore; U-Cart Concrete Systems Int'l, Vancouver, Roland Gonzalez; Varco-Pruden, Div. of Dambrico, Inc., Pine Bluffs, Ark., Benny Barbour; and Jaros, Baum & Bolles, New York, Richard T. Baum.

Investment Curbs End

The Office of Foreign Direct Investments in the Department of Commerce announced that the foreign direct investment controls administered by the Office were terminated effective Jan. 29. This action includes rescinding of the controls on repayment of outstanding foreign borrowings announced last Dec. 26.

The Foreign Direct Investment Program administered by OFDI was instituted on Jan. 1, 1968, in response to the deterioration in the U.S. balance of payments position.

Direct investors will be required to submit reports regarding compliance during 1973 with the Foreign Direct Investment Regulations. The Office will issue simplified reporting forms in the near future for use in gathering economic statistical information on the current and future foreign investment activities of a substantially reduced number of direct investors.

In related moves, the Treasury Department eliminated the interest equalization tax on purchase of foreign bonds and stocks and the Federal Reserve Board terminated the voluntary program of restraints on bank lending abroad.

Canadian Customs Changes Will Save Suppliers Time

Canadian Customs has recently introduced certain changes that will mean a marked reduction in time spent meeting Customs documentation requirements for many U.S. exporters. The value of commercial shipments to Canada that are admissible without supporting Customs invoices (form M-A and N-A) has been increased from $100 to $200.

At the same time, the requirement for Customs invoices has been removed completely for shipments to casual importers who are not importing the goods for sale or any other commercial use. In these cases the shipments need only be supported by some evidence as to the correctness of the declared value of the goods, such as a sales slip, commercial invoice or other information acceptable to Canadian Customs.

CHECKING IT OUT—*Thai agents explain the operation of U.S. equipment to prospective buyers at* TECHSPO *73 in Bangkok, where American industrial, scientific, business and EDP equipment got a rousing response from Thai businessmen.*

Bangkok Exhibit Reveals Demand For High-Technology U.S. Goods

An enthusiastic Thai business community welcomed 25 exhibitors of U.S. industrial and scientific instruments and EDP business and office reprographic equipment, at TECHSPO 73 held in Bangkok Nov. 26-30.

TECHSPO '73 found a ready market in the audience of 4,000 that included prime-business prospects from Thai industry, science, commerce and government. A concurrent state-of-the-art seminar drew almost 500 Thai business leaders.

The sales figures confirmed what the market research had indicated, that the two general product categories chosen for the show were of major importance to the continuing industrial and commercial growth of Thailand. Floor sales during the show were $217,113. Three of the exhibitors, penetrating the Thai market for the first time, projected sales during the next 13 months of $1.2 million. All three of the companies seeking local representation in Thailand either signed agreements during the show or are actively negotiating with potential agents and representatives.

Confirms market's promise

TECHSPO '73 results reconfirm the validity of the American business community's continuing interest in this market. Expanding demand for capital equipment and the improved competitive position of U.S. products boosted American exports to Thailand sharply during 1973, and the outlook is for continued significant improvement.

Thailand offers promising markets for a wide range of U.S. products. Government projects include a major improvement of the Bangkok water system and the country's first nuclear power plant. Textile machinery, hospital equipment, and plastics and packaging machinery are other product areas for which there is strong Thai demand.

Five Shows Seek U.S. Exhibitors

Five upcoming foreign trade shows have indicated an interest in exhibits by U.S. firms.

Cairo International Fair, March 9-30. For information on this Seventh Cairo International Fair, write: Ministry of Economy and Foreign Trade, General Organization for International Exhibitions & Fairs, Guezira Exhibitions Ground, Cairo (Cable: Nefertiti—Cairo, tel.: 817098).

Japan Printed Circuit Show, June 1-4. For the first time this event will be open to non-Japanese exhibitors. Exhibits will include materials, related machinery, parts and manufacturing equipment. For details contact the Japan Printed Circuit Assn., Yoshida Bldg., 21, Kamiyacho, Minato-ku, Tokyo.

Fifth International Radio Electronics Symposium, Varna, Bulgaria, June 15-19. The Government of Bulgaria invites U.S. firms to exhibit at Radio Electronics '74. Areas of interest include quasi-electronic and electronic communications systems, computer applications and VHF in radio relay, television and multi-plexing. Write: Scientific and Technical Union of Electro-engineering, Rakovski St., P.O.B. 612, Sofia, Bulgaria.

SINAVAL 74, Bilbao, Spain, June 22-July 1. Foreign firms will take part in this exhibit of naval, harbor and maritime equipment. Write: Gonzalo de Arana, Executive Vice President, Bilbao International Fair, Apartado 468, Bilbao, Spain (Telex: 33783; Tel.: 415400).

Second Microfilm Congress, Cologne, Nov. 12-15. The technical exhibition will be supplemented by a program of lectures on actual experiences in the field. Lecturers are needed. Write: Ausschuss fur wirtschaftliche Verwaltung, 6 Frankfurt/Main 1 (Telex: 411154; Tel. (0611) 230451.

ZEROING IN—*German buyers were primed and ready for the microcircuit products of 57 American firms at the recent exhibit in the U.S. Trade Center at Frankfurt.*

U.S. Microcircuit Equipment Registers Sales Hit At Frankfurt Trade Center

Thirtynine U.S. companies representing 57 manufacturers in the field of microcircuitry, its design, test and production, presented their latest developments and techniques to some 700 experts during a recent exhibit at the U.S. Trade Center in Frankfurt.

Considering the lead time normally involved in sales with long-term mass application, the $476,000 worth of orders booked off-the-floor during the five-day event, were a pleasant surprise.

Of the fourteen companies who were seeking representation in Germany or other European countries, nine were able to sign respective agreements by the end of the show. Twentyone agreements for representation, distributorships, joint venture arrangements or licensing accords are still under negotiation and expected to be signed within the coming 12 months.

The sales projection for the upcoming year totals $4.9 million for companies which were new to the German market.

Companies with the largest off-the-floor sales were: Quantronix Corporation, manufacturing laser-scribers; Coates & Welter Instruments Division, featuring F.E. scanning electron microscopes; Laurier Assoc. with their line of modern bonding equipment, and Fluoroware, dealing in Photoresist developing equipment.

Metallurgy Items Score Top Sales At Mexico City

The U.S. Trade Center in Mexico City reported the best sales results in its two-year history at a recent showing of metallurgy equipment and instrumentation. The 33 U.S. firms exhibiting at the show reported $489,000 in off-the-floor sales and the ten new-to-market exhibitors expect to make another $2.7 million worth of sales in the year following the exhibit.

The ten firms which were seeking representation in the Mexican market signed four agreements during the show and opened negotiations with 24 more potential agents. One joint venture is expected to result.

Of the 1,145 registered visitors 26 percent came from outside the Mexico City area, another high-water mark for a Trade Center event.

A four-day conference was organized by Paul D. Frost of the Battelle Memorial Institute to coincide with the exhibit, and attracted as many as 100 attendees to hear the technical presentations.

TECHNICAL MEETING—*A four-day conference held in conjunction with an exhibit of metallurgy equipment at the U.S. Trade Center in Mexico City helped attract record attendance at the show. Sessions attracted as many as 100 businessmen.*

International Business Reports

Guide to National Practices in Western Europe. Parkland Research Europe, S.A., Brussels and London, 1973, 223 pp.; U.S. Distributors: Cahners Publishing Co., Boston. Approx. $10.

This 'Guide' was written primarily for the benefit of English businessmen contemplating sales or direct investments in Europe following the recent enlargement of the EEC. Nonetheless, its factual information and analyses of advantages and pitfalls of foreign operations could be of inestimable value to any businessman attracted to the lucrative European market, with the added attraction of participation in Eastern trade from continental bases. The book was completed before the energy developments following the Middle East conflict but this, if anything, adds to its value as an authoritative guide to this highly competitive market. What distinguishes the Guide from a number of similar 'how to' studies is that it goes beyond a mere recapitulation of different legal and administrative constraints into the institutional and social climate in individual countries, and the degree of acclimatization a foreign business must be capable of in order to succeed.

Write: Cahners Publishing Co., Inc., 89 Franklin St., Boston, Mass. 02110.

Managing Foreign Investment in Southern Italy: U.S. Business in Developing Areas of the EEC. By Douglas F. Lamont. 169pp. $15.

Analyzes the reasons behind the loss of $120 million in investments by four U.S. firms in the Italian Mezzogiorno during the late 1960s. Shows how some firms were able to sue the government's development fund to their advantage and survive, while other firms lost enormous investments through lack of understanding between companies, government, and the government's industrial development affiliates.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

California Export Service Guide. Published by the state of California Division of International Trade. 80pp. Free.

This guide, designed to assist California manufacturers in exporting their products, provides a listing of more than 1,000 California organizations and businesses that can assist the beginning or expanding exporter in increasing export business. Pertinent information about export-oriented organizations is included.

Write: "California Export Services Guide," California Department of Commerce, Division of International Trade, 1400 Tenth St., Sacramento, Cal. 95814.

Advantages of Incorporating and Operating in the Cayman Islands. By Walter H. Diamond. 23pp. Free.

The author states that this British Crown Colony has three assets which make it unique as a location for world operations. First, he says, there are no taxes whatsoever on income or profits, capital or wealth, capital gains, property, sales, estate or inheritances. Second, these islands qualify for less-developed country status for U.S. Government regulations regarding taxation and foreign investments. Finally, the stable government and sophisticated banking services have attracted numerous foreign companies and private investors. Diamond goes on to discuss these and other advantages.

Write: Walter H. Diamond, 74 Trinity Pl., New York, N.Y. 10006.

Calendar For World Traders

Feb. 6-7 — Washington, D.C. — Symposium on prospects and problems for foreign investors in the United States, Statler Hilton Hotel. Sponsor: Chamber of Commerce of the United States.

Feb. 7 — New York — International Industrial Marketing Club luncheon on new markets in the Middle and Far East, Chemists Club, 11:45 a.m.

Feb. 12 — Louisville — Kentuckiana World Commerce Council meeting, Holiday Inn, Brownsboro East.

Feb. 12 — Memphis — Mid-South Exporters' Roundtable, Grisanti's Restaurant. Topic: The Energy Crisis, Domestic and Worldwide.

Feb. 13 — Minneapolis — Monthly meeting of the Minnesota World Trade Assn., Normandy Motor Inn, 7 p.m. Topic: Metric System.

Feb. 13 — New York — FCIB Publishers Export Credit Group luncheon meeting, Advertising Club, 1 p.m.

Feb. 14—New York — Overseas Automotive Club monthly meeting, Summit Hotel, noon.

Feb. 19 — Memphis — Memphis World Trade Club meeting, Schlitz Brewery.

Feb. 19 — New York — FCIB Hardware-Automotive & Allied Trades Group luncheon meeting, Advertising Club, 12:30 p.m.

Feb. 20 — Fargo, N.D. — Eastern North Dakota Conference on International Trade, Town House Motel. Sponsors: Kansas City District Office and Small Business Admin.

Feb. 27-28 — Chicago — 37th Annual Chicago World Trade Conference, Palmer House. Sponsors: Chicago Assn. of Commerce and Industry, Int'l Trade Club of Chicago.

Feb. 28 — Atlanta — Export seminar, Atlanta District Office, 10 a.m.-noon.

Worldwide Business Outlook

Two Major Trouble Areas Face Otherwise Buoyant Costa Rica

The Costa Rican economy on the whole was buoyant during 1973 and the outlook is for a relatively high level of activity during the current year.

Balance of payments pressures, very much in the forefront during 1972, are no longer of such concern, as substantially increased earnings from exports have pumped new money into the economy. Indeed, many economists fear that the economy today is too liquid, and that the benefits of increased current account earnings and substantial capital inflows may be dissipated in a new impulse to import.

Favorable indicators noted by the U.S. Embassy in San Jose include, in addition to increased export earnings, a moderate construction boom and strong growth in industrial production and industrial electric power consumption. A survey of major retail trade outlets conducted in late November revealed sales on average running, in comparison to 1972, over 27 percent higher by value.

However, there are two major trouble areas clouding an otherwise reasonably favorable outlook for 1974: inflation and the world energy crisis.

In sum, the climate for trade and investment has improved over 1972. A major development in this strengthening has been Costa Rica's recommitment to the Central American Common Market (CACM) — the difference between a market of two and 16 million population. In contrast to the situation in August 1972, when many Costa Ricans openly urged withdrawal from CACM, today most industrialists and seemingly the public at large recognize the indispensability of a region linkage. The concern is that other CACM members might not share the same sense of urgency for speeding up the integration process as many Costa Ricans, albeit recent converts, now possess.

The present buoyancy of the economy illustrates the close interconnection between world market conditions for Costa Rica's major export commodities and Costa Rica's economic wellbeing. Earnings from four commodities—coffee, bananas, beef and sugar—last year, totaling about $240 million, will be almost 20 percent above earnings from the same commodities in 1972. With the exception of bananas, however, growth in earnings from these four commodities in 1973 was almost entirely due to price factors. There was little increase in quantities exported for most.

For 1974, market conditions for all these "traditional exports" should remain firm, but over the long term, prospects for each commodity differ. For example, the 1971 experience demonstrates Costa Rica's vulnerability to fluctuation in coffee prices, which are influenced importantly by such factors as frosts and new plantings in Brazil.

Coffee for the foreseeable future will remain an important crop, but Costa Rica wisely desires to lessen dependency upon coffee by moving marginal lands into other crops and by seeking to encourage new "non-traditional" exports. In contrast to coffee, the beef cattle industry clearly qualifies as a major growth industry, with an assured market for the foreseeable future in the United States, and, recently, good prospects for Europe and Japan.

The current dollar value of imports also was up in 1973, but in real terms, import growth probably slowed, despite some tendency of merchants and industrialists alike in 1973 to build up inventories as a hedge against growing world inflation and scarcities. The important thing is that the trade deficit, which reached alarming proportions in 1971 (about $124 million), has declined since that time, with final data likely to show a still high, but manageable, deficit in the $70-$80 million range for 1973. Earnings from services such as tourism were high in 1973. Capital inflows have been substantial.

Significant result

One significant result of the improved balance of payments position has been that the Central Bank reports that it has substantially reduced its backlog of applications for foreign exchange at the official rate, with many applications for official exchange now honored on almost a current basis. Financial circles note, however, some delay in processing applications for official exchange for remittances on registered capital.

After years of relative price stability, Costa Rica is now experiencing a phenomenon already well known to most Latin American nations—inflation. Prices during the past decade on average increased with rare exception no more than one or two percent. However, an upward creep, beginning about 1970, was recognized by 1973 as a serious inflationary problem. No reliable index of retail prices exists; however, the Central Bank recently made a preliminary estimate of a 15 percent increase in price levels during 1973, with some other sources estimating an even larger increase.

Since 1971, the rate of expansion of net credit to the banking system has been progressively lowered, but other sources of credit appear relatively unchecked. The trend through 1972 was also toward restricting expansion of monetary supply, but this was reversed in 1973 and by

September it was up a whopping 29 percent over the past year—this was largely a reflection of foreign capital inflows, as large amounts of dollars and other foreign exchange were converted into domestic currency. Central budget growth has continued steep—about 16 percent, 1973 over 1972.

At the present time GNP growth in current terms is quite high, but growth after inflation — real growth—seems to be running considerably below pre-1972 levels. The extent to which solid foundations for a new era of real growth will be laid in 1974 will depend importantly upon the course of inflation, which in turn will depend not only on external factors, but upon the monetary, fiscal and wage policies of the new government which takes office in May.

U.S. economic interests

U.S. economic interests in Costa Rica are relatively large and the implications for the United States of political, social and economic trends there are greater than in many larger countries. Of particular interest to American businessmen and investors during the next twelve to eighteen months are the following factors.

Elections will be held Feb. 3 to choose a new president and an entirely new National Assembly which will assume office in May. Top contenders present policy alternatives, but do not propose radical changes in the political or economic system. Costa Rica's tradition of political stability and peaceful, democratic change is not threatened.

No matter who wins the coming elections, the new government will have to face the problem of inflation—or its mirror image, balance of payments pressures. In this situation, the emphasis will not be on easing credit. More conservative fiscal policy also might be in order. It is generally expected that the colon will be reunified shortly after the elections.

No basic change seems likely in Costa Rica's receptivity to foreign —mostly U.S.—investment. On a per capita basis, U.S. investment there is greater than in Brazil. Moreover, perhaps some 8,500 Americans now live in Costa Rica. In many cases they have purchased land or engage in various forms of business activity. This growing "American presence", and particularly the activities of a few unscrupulous and insensitive promoters, have given some Costa Ricans pause and might lead to an attempt to regulate future investment.

In such case, foreign investment and Americans would still be welcomed and appreciated, but the emphasis might well be more on selectivity. To a greater extent than before, the burden of proof may be on the foreign investors that the prospective investment is indeed beneficial to the country—and not just to the promoter.

In 1972 the U.S. supplied 33 percent of the Costa Rican market ($123 million, c.i.f.) and purchased 40 percent of its exports ($113 million, f.o.b.). The outlook is for trade to stay high and roughly in balance. Our percent share of the Costa Rican market may increase slightly. The rapid rise of Japan as a competitior should level off somewhat, as a result of the revaluation of the yen and constraints on production in Japan. Market opportunities will be particularly attractive in intermediate and capital goods, including construction equipment; less so in consumer goods.

The projections in this report are necessarily predicated on the assumption that the world energy crisis will not worsen nor be prolonged. Costa Rica was one of the first hit with a gasoline shortage (requiring about 25 percent rationing) but production losses were not great and new contracts hold out promise for relatively early normalization of supplies.

Still, Costa Rica is potentially quite vulnerable. With no known petroleum reserves and a refinery unable to meet demand alone, Costa Rica's petroleum supply system is fragile.

A severe, prolonged world petroleum shortage could have serious effects on Costa Rica's vital foreign trade, as well as on production. The present world crisis, however, may have a salutory effect in stimulating interest in hydroelectric development, new oil explorations, and geoelectric projects—harnessing Costa Rica's volcanoes for producing electric power.

Tourism, agrobusiness, and industrial expansion offer opportunities for investment and sales. Nevertheless, investment in infrastructure—roads and highways, ports, and hydroelectric facilities—will probably be more important over the next few years in determining the shape of development.

Major decision

Decision on one project of major importance, the ALCOA aluminum development plan, may be reached in 1974. This project would involve a separately financed large-scale hydroelectric facility on the Terraba River, as well as a refinery/smelter complex built by ALCOA. Total investment reportedly could reach $700 million and when on-stream ALCOA's annual exports could exceed $150 million (1973 dollars).

In addition, another large-scale project is envisioned for the Arenal River, where work may be initiated on a 135,000 KW hydroelectric facility and an associated irrigation network within the next eighteen months.

The above-mentioned projects offer possibilities for provision of materials and equipment, as well as engineering and design services, feasibility studies and the like. Information about bid opportunities on these and other projects will be available from the U.S. Department of Commerce and its district offices.

Bolivia Welcomes U.S. Businessmen Into High-Risk, High-Gain Ventures

Bolivian GDP grew about 7 percent in 1973 and a similar growth rate is expected by the U.S. Embassy in La Paz this year. U.S. exporters will be able to find selective and interesting opportunities and U.S. investors will find a government welcoming them into high-risk, high-gain ventures.

Increased mineral exploitation, agricultural production and construction have improved employment opportunities by an estimated 3 percent over the past year. The cost of living for the average Bolivian is rising at about a 35 percent annual rate; wages have followed fairly closely behind. The supply of money has increased by about 20 percent, largely due to deficit financing of the government's budget by the Central Bank.

Heavy aid flow

During the past year, the Bolivian Government firmed up more than $90 million (figures throughout this report are in U.S. dollars) in bilateral and multilateral assistance, mostly for infrastructure and industrial projects. At present, it is negotiating for an additional $260 million, also for infrastructure and industrial projects, both large and small. Credits already made available will be disbursed over the next three years; credits being sought, if obtained will probably be disbursed over the period 1975 to 1978.

In Bolivia's $1.1 billion economy, merely a portion of the above monies would have a dramatic impact.

The following loans have been signed recently: (1) $10 million from IDB to the National Road Service for road paving; (2) $5 million credit from Banco do Brazil to the National Road Service to import road construction equipment; (3) $6 million from IDA to the National Electric Corporation to connect the northern and central electricity nets; (4) $10.8 million from AID for rural electrification; (5) $13 million from IDB for the El Alto–La Paz freeway, and (6) $47 million approved by the IDB Board to YPFB (the State petroleum company) for Cochabamba and Santa Cruz refineries.

The following loans are being sought: (1) $45 to 60 million for the Oruro—Quillacollo highway; (2) $18 million for two pipeline projects; (3) $10 million for Villamontes area irrigation system; (4) $10 million for La Paz sewage system; (5) $33 million for the first phase of the La Paz-Beni highway; (6) $27 million from IDA for railroad rehabilitation, the first tranche of which, or $8 million, has already been obtained and is being spent; (7) $10 million for improving and increasing Bolivia's cattle stock; (8) $6.5 million for the second phase of the AID rural electrification program; (9) $16 million for Agricultural Development and Animal Health; (10) $1.5 million for lumber industry development; (11) expansion of ENAF's Vinto smelter, $4 million of which has already been secured from a German commercial bank; (12) $8 million to Medium Miners for mining machinery and development, and (13) $10 million for the Oruro pesticide plant.

Bolivia's efforts to negotiate a $220 million petrochemical complex with Peru under the Andean Pact were apparently not fruitful; nevertheless, considerable long-term interest in a binational project of this nature remains.

In a special category is the government's attempt to put together a development package for eastern Bolivia. The project includes natural gas sales to Brazil and development of the Mutun iron ore deposits and envisions roads, cement and fertilizer plants, steel forming mills and a gas pipeline to Corumba in Western Brazil. Total cost of the project is estimated at $700 million.

Private Bolivians have made approved or accepted applications under the Investment Law for tax and other benefits in connection with proposed investments now totalling more than $60 billion — up by about 50 percent from the level at this time a year ago. This development—in an economy the size of Bolivia's—continues to have a snowball effect, both economically and in building confidence. Increasing investment in Bolivia seems closely related to political and social stability—the Banzer Government is now in its 27th month—and the government's serious interest in stimulating Bolivian and foreign investment.

Generous tax exemptions

Bolivia's Investment Law offers generous tax exemptions; the Hydrocarbons Law sets the framework for potentially lucrative contracts, if product is discovered, in lieu of concessions. Both Laws state explicitly that they apply equally to Bolivians and foreigners. Senior Government officials regularly go on record with invitations to foreign investors to come to Bolivia and have made trips abroad to try to attract investors.

Local private investment projects range from hotel to cotton plantations, sawmills to spaghetti factories, meat packing plants to mines; amounts being invested range from $25,000 by a Cochabamba newspaper in new equipment to more than $6 million in a La Paz hotel.

Union Oil Company, Cities Service, Marathon, Occidental, Total and Phillips are among the major petroleum companies which have contracted with YPFB to spend a total of at least $16 million over the next three to four years in exploration for hydrocarbons under the terms of individually negoti-

ated operating and/or service contracts. YPFB officials, while expressing satisfaction with the arrangements concluded with foreign oil companies, lament that there have not been more contracts.

Metal ore mining will continue to be Bolivia's mainstay, providing more than half of foreign exchange earnings. While generally delighted with the current high price levels for ores, most Bolivian officials and businessmen agree that increased production is the surest road to increased earnings and that increased production is best achieved by additional and more efficient machinery. Earlier this year, for the first time in recent memory, COMIBOL, the Government mining corporation, invited foreign as well as national investors to bid for rights to exploit certain small properties. Recently, the Government lowered export taxes on some ores, such as lead and zinc, but according to private miners, export and special taxes are higher than they should be to favor new investment. Although the Government is understood to be preparing a new mining law, no inducements specifically designed to attract new private investment in the mining sector have been set forth since the days of the Barrientos Government (1964-1969), unlike the private investment and hydrocarbons sectors.

In 1973, Bolivia's industrialized agriculture once again suffered a setback from expectations, but the setback hardly seems to have dulled optimism.

Unique export and investment challenges and opportunities exist within the Andean Pact, of which Bolivia is an especially privileged member. Under the "Sectoral Program of Industrial Development for the Metal-Working Industries," Bolivia has been assigned certain manufacturing activities. Other member countries of the Pact have committed themselves not to provide preferential credit treatment, tariff, tax or exchange rate incentives or other governmental assistance or encouragement to new investments in these activities until the end of 1987, in the case of Colombia, Chile and Peru, or until 1982, in the case of Ecuador. Venezuela's position is not yet clear but will probably fall into the former group.

The manufacturing activities assigned to Bolivia are compressors (40 HP and up), pneumatic tools, threading tools, sinterized plates and rods, mechanical saws, three-cone bits without inserts, conical crushers, electrical switches (under 1,000 volts) and sealed absorbtion units.

Through an arrangement with a U.S. firm, Dresser Industries of Dallas, a Bolivian enterprise has announced that it will soon begin fabrication of three-cone bits. Offers have been made by a number of firms to establish manufacturing plants in some of the other activities.

U.S. can sell more

Bolivia currently buys from the United States about one-third of total imports, which in 1973 reached about $220 million f.o.b. Trade patterns seem to have been affected, at least in part, by a preference for American technology and expertise. As U.S. goods and services are now more competitive because of the devaluation of the American dollar, aggressive U.S. suppliers should be able to increase not only sales but also their share of the market.

Particularly promising areas will be mining, petroleum, construction and agricultural machinery, communications equipment (especially television receivers), pharmaceuticals, foodstuffs and the entire range of consumer goods. Principal competition will come from Japan, Germany, Argentina and, increasingly, Brazil and the Andean Pact countries.

Bolivians, like many other Latin Americans, are defensive about foreign ownership of business and

BOLIVIAN ORDER — *Allis-Chalmers manufactured this firing hood for a rotary cement kiln for an expansion project at a cement plant near La Paz.*

industrial assets in their country. This is especially true of extractive and basic industries. Nevertheless, private American investors, particularly those willing to enter into mixed enterprises or contractual arrangements, should find the Bolivian business climate considerably more hospitable than at any time during the last five years and in many ways far more advantageous than in other member countries of the Andean Pact. U.S. firms which are willing to provide projects to Bolivia, and especially to the government, on a "turn-key" basis should encounter considerable receptivity. For major construction projects, overtures from U.S. consulting firms will undoubtedly be welcome.

With the price of metal ores and especially petroleum skyrocketing, exploitation of Bolivia's as yet unknown total potential should become more and more attractive. YPFB itself talks in terms of the need to invest $100 million to begin to realize the country's petroleum potential and hopes to sign an additional six contracts with American companies within the next six months.

COMIBOL says it would like to

see development of the copper/bismuth/lead/zinc/silver deposits in Bolivia's southwest which might require, according to one estimate, $100 million for machinery, equipment and infrastructure. Additional specialized equipment will be required if hopes to augment production of alluvial gold in the area north of La Paz are to come to fruition.

In agriculture, there seems to be a growing awareness of the need for and benefits to be derived from application of the highest agricultural technology, including crop spraying, seed selection and treatment, crop rotation, fertilizers, and irrigation. Demand for agricultural machinery, such as cotton pickers, other harvesters and tractors, is likely to grow surprisingly strong. This year should see the first significant expansion of commercial soybean production, with about 15,000 to 20,000 acres being planted, up from a recent year average of 2,500 acres. Necessary seed, fertilizer and machinery equipment acquisitions are expected to require $1.5 million of AID monies alone.

There are several other areas in which import demand should continue to grow. A microwave relay telecommunications system financed partly by the Inter-American Development Bank and the British Government is now in the tender stage. As a result, attractive opportunities will exist to provide communications equipment in order to meet the nearly universal demand for better telephone service and the desire to bring television to the entire nation. Reflecting the increased importance being given to industrialized agriculture and cattle raising, opportunities will arise for innovative approaches in the areas of food products and packaging. Finally, bearing in mind that for the next several years the airplane will continue to be the most efficient means of transportation in Bolivia, a substantial and steady market will exist for both aircraft and spares.

Nicaragua's Remarkable Comeback Makes Outlook Surprisingly Good

The Nicaraguan economy made a remarkable comeback in 1973 and the outlook for 1974 is surprisingly good.

Despite the two disasters in the second half of 1972 — the worst drought in 40 years followed by an earthquake which devastated the capital city of Managua — a real GDP growth rate of 3.2 percent was estimated for 1973 and a hefty 9 percent is predicted for this year.

Most U.S. exports are price competitive in Nicaragua, according to the U.S. Embassy in Managua, and proximity to market gives them an edge where immediate reconstruction needs place a premium on prompt delivery. The U.S. market share appears to have reversed a downward trend last year and should improve further in 1974.

The outlook for agricultural production and exports in 1974 is outstanding, based on expectations of a record cotton crop. Manufacturing industry is back to normal and should show healthy growth in 1974. Nicaragua's manufacturing industry is concentrated in Managua but fortunately most of it is located away from the areas of worst earthquake impact. An estimated 25 percent of Managua's industrial production was initially affected by the quake but most of this was restored within months.

The construction industry, faced with the task of reconstruction, is expected to boom. Commerce is running ahead of 1972 and shows considerable vitality. Bank deposits are at record levels and investment loans for reconstruction and expanded agricultural and industrial production are picking up.

Both government revenues and expenditures in 1973 ran well ahead of 1972. The government budgeted total capital expenditures at $75 million for 1973 and over $100 million for 1974. Government borrowing will increase, but favorable terms from international lending agencies and rising exports should keep the debt service ratio within acceptable limits. Employment, which dropped in early 1973, has probably been restored to pre-drought/quake levels or higher and should grow further in 1974.

As a result of the drought, the earthquake and sharply higher prices for imports, Nicaragua suffered its worst inflation in memory in 1973. However, government officials are hopeful the worst is over and inflation rates will moderate in 1974. Both exports and imports should reach record levels in 1973 and again in 1974. A trade surplus is expected in both years. Net international reserves are at record levels and should increase further in 1974 followed by a drawdown in 1975.

Double impetus

The reconstruction of Managua and booming agricultural exports will provide a double impetus to Nicaraguan economic development over the next several years. A strong reserve position and positive trade balances plus international assistance for reconstruction will permit imports to rise to record levels. Because of recent currency realignments, U.S. exports are again price competitive in Nicaraguan markets. Moreover, proximity to Nicaragua gives U.S. products an edge in many areas where the immediacy of reconstruction needs places a premium on rapid delivery. The Embassy stresses this advantage and strongly urges potential U.S. exporters to exploit it.

U.S. market share of total Nicaraguan imports declined from 43 percent in 1967 to 31.3 percent in 1972. In the first six months of 1973, this trend reversed as U.S. market share increased to 33.7 percent. The Embassy believes condi-

tions are ripe for further market share increases in 1974. A survey of leading commercial and industrial firms made by the Commercial Section in August revealed that since the dollar devaluation, 63 percent had already increased their imports from the United States relative to other supplier countries and 93 percent expressed the intention of doing so. The most frequent complaints registered concerned the difficulty of obtaining prompt replenishment of inventories from U.S. suppliers.

In considering potential export opportunities to Nicaragua, it should be kept in mind that a city of over 400,000 will be restructured, rebuilt and modernized. Heavy construction equipment, building supplies and materials, power tools and hardware items come to mind quickly. Housing construction will create strong demand for new appliances and home furnishings. New government and private office buildings will open the market for business machines, office equipment and furnishings. New shopping centers will require fixtures and inventories. New hospital construction should result in the purchase of $5-7 million worth of hospital equipment over the next five years.

Only one of three major hotels survived the earthquake; others are needed and will unquestionably be built. Only two movie theaters survived and reopened; several are under construction and more are planned. New restaurants and short order food shops are springing up around the city, offering many opportunities to U.S. equipment manufacturers and franchise operations. The new, decentralized city will require greatly expanded public transportation, especially buses.

Major housing, infrastructure and decentralization projects will be financed by U.S. AID, the World Bank and the Inter-American Development Bank. Over $50 million was committed by these agencies in 1973 and other projects are under consideration for 1974. These projects will be bid internationally and U.S. firms will have an excellent chance for many of them. In 1973, several U.S. firms won substantial contracts (more than $1 million) for reconstruction related projects such as prefabricated schools, the demolition and cleanup of the downtown area and construction of emergency facilities.

Substantial new investment in the agricultural sector is also expected in 1974. High cotton prices and good crops should produce excellent markets for agricultural equipment. The drought has expanded considerably the market for irrigation equipment of all types. Expansion of livestock, both cattle and hogs, offers new sales opportunities for purebred breeding stock, feeding and handling equipment and veterinary supplies. Growing interest in production of fruits and vegetables for export to U.S. markets should provide a new market for food processing and packaging equipment.

Other opportunities

Investment opportunities also exist in both reconstruction and agricultural production. Several new joint venture operations were launched by U.S. firms in 1973 in the construction industry. In a number of fields, local capital is available to invest with U.S. technical proficiency and marketing experience. Foreign private investment is welcome in Nicaragua both for joint ventures and wholly-owned operations. The local currency is stable vis-a-vis the dollar and may be exchanged freely for profit and capital remittances. Investment incentive programs apply equally to both local and foreign capital.

The consensus among government officials, the public and major political parties strongly favors the free enterprise system and there is no significant political opposition to foreign investment.

Somali Market Still Small But Shows Promise

The economy of Somalia has been growing moderately in recent years, but the market for U.S. products remains quite small.

Somalia has been buying around $5 million of American goods, mainly machinery parts and pharmaceuticals, in each of the last several years. U.S. exporters to that East African nation face some difficulties, according to the U.S. Embassy in Mogadiscio, including Somalia's reduced duties on certain imports from Common Market countries, which puts U.S. products at a disadvantage in price. With a few exceptions, Somalia's distance from the United States, low demand for sophisticated products, and strong competition from countries with price or transport advantages permit only very limited possibilities for American exports.

Apart from oil exploration, prospects for U.S. investment in Somalia are not bright at present either. Somalia's policy of "scientific socialism" in practice tends to discourage foreign private investment. However, foreign business does play a role in the ownership and management of several enterprises, mainly food processing plants.

Economic base

The economy of Somalia is still based on nomadic herding of livestock, which constitutes the principal source of livelihood for about 60 percent of a total population estimated at somewhat over 3 million.

Somalia is listed by the United Nations among the 25 least developed countries in the world. Rainfall is very limited, and natural resources, in the absence of further discoveries, are scarce.

There are, however, some significant opportunities for economic

development, particularly in agriculture and fishing. There has been a continuing search for oil by several different groups, and interest is growing, but so far there have been no discoveries.

The Government is currently preparing a Five-Year Plan for the period 1974-1978, following the Three-Year Plan for 1971-73. It is expected that agriculture and livestock will continue to receive priority emphasis. There will be some development of light industry to reduce imports of consumer goods and enhance the value of certain food exports, as well as to develop an industrial labor force and relevant management skills. In addition, education and health programs are important features of the overall plan, with major emphasis on the self-help concept throughout.

Substantial foreign aid

Somalia continues to receive substantial amounts of foreign aid; the main limiting factors in economic development, apart from basic scarcity of natural resources, appear to be administrative problems and shortage of skilled manpower.

Bilateral aid is mostly, but not entirely, from communist countries. Multilateral aid comes from various UN agencies, and from the EEC. Foreign aid is necessary for certain major infrastructure projects, planned or already commenced. A 600-mile all-weather road linking the northern and southern parts of the country is being built with Chinese assistance.

A major irrigation/hydroelectric project at Fanole on the Giuba River in southern Somalia is to be undertaken with Russian aid. A deepwater port for Mogadiscio was started in October with EEC and IDA assistance.

New U.S. Government assistance to Somalia through U.S. AID is prohibited by U.S. legislative provisions barring such aid to countries whose ships trade with North Vietnam and Cuba. However, U.S. AID has a continuing cooperative relationship regarding an older loan for the Mogadiscio city water system. The United States Government has endeavored to be helpful to Somalia in other ways, principally through contributions to United Nations activities, including World Food Program projects in Somalia.

Budget and trade figures indicate a moderate growth in the economy during recent years. Despite a trade deficit, foreign exchange reserves, amounting to about $33 million at the end of 1972, continued to increase in 1973. This occurred because of the time lag in spending foreign aid loans received in the country.

Somali exports in 1972 came to about $57 million, about 25 percent higher than in 1971. Imports were about $72 million. The $15 million deficit was somewhat smaller than that of the preceding year.

Somalia's most important export market by far is Saudi Arabia, which received 53 percent of total Somali exports, mainly live animals. Italy received 18 percent, mainly bananas. Imports came largely from Italy, 30 percent, then the USSR, 10 percent.

Inflation hits here, too

There was a significant rise in domestic prices during 1973; the Government has attempted to counteract rising prices by subsidizing the retail price of certain consumer food staples, notably rice and flour.

Somalia's small light industrial sector has not enjoyed rapid growth producing for export. Food processing plants include meat processing plants at Mogadiscio and Chisimaio, four fish canning plants on the north coast along the Gulf of Aden, and a tomato and fruit juice cannery at Afgoi near Mogadiscio.

Local factories have been built to make products such as textiles, soap, and cigarettes. A small iron foundry is planned for Mogadiscio. A cement factory has been under discussion. The small local market is a constricting factor in the efficiency of such enterprises.

Discovery of oil in quantity would, of course, revolutionize the Somali economy. Currently, four international groups, each with major U.S. participation, are active in Somalia, but none have been successful in their explorations.

American Firms Urged To Reserve Space In Warsaw Trade Center

American firms interested in establishing offices in Warsaw can look forward to the opening of the Warsaw International Trade Center in September 1975.

The 38-story center, being built especially to accommodate foreign firms, will provide various amenities such as shops, restaurants, exhibition space, and underground parking. The upper floors, available for office space, will each contain 440-460 square meters of floor space which can be divided into blocks no smaller than 110-120 square meters.

In addition to the center itself, 78 residential three-story row houses are being constructed for leasing to representatives of foreign firms.

Although completion is still more than a year away, interested companies are urged to request space now (without obligation) for both offices and housing.

Requests for space and information about floor plans and rental schedules should be sent with full details to: Henryk Butkiewicz, Director, MINEX Foreign Trade Enterprise, Krakowskie Przedmiescie 79, P.O. Box 1002, 00-950 Warsaw, Poland.

Another facility available to U.S. firms is the U.S. Trade Development Center, established in Warsaw in November 1972. For more information about this U.S. Center see *Commerce Today*, Dec. 24, Pages 26-28.

World Trade With E. Europe, Soviet Union Climbs Sharply

World trade with the USSR and Eastern Europe expanded vigorously in both directions during 1973. The greater exchange of goods resulted from a steep rise in the East's purchases of farm products and advanced machinery and from strong import demand in the expanding economies of industrial countries. The removal in late 1972 of Western nations' export controls on various products contributed to the trade growth last year.

The rise in trade values also reflected the generally higher prices of goods moving internationally. Moreover, part of the gain represented valuation changes from converting national export and import data to U.S. dollars at prevailing exchange rates.

Exports surge

Exports to the Soviet Union and Eastern Europe surged to an estimated $20 billion last year, an increase of around one-half from the 1972 level. These are preliminary figures based on data for nine months from the principal trading countries.

Full-year statistics indicate that U.S. exports to the USSR and Eastern Europe rose to $1.8 billion, more than twice their value in 1972. This large advance made the United States the second largest exporter to the area—following the Federal Republic of Germany—after its sudden rise to third position in 1972.

Imports also climb

World imports from the East also expanded rapidly after a moderate rise in 1972. Last year's total was about $16 billion, a gain of two-fifths. Germany continued as the leading market for these goods while the United States remained among the top ten importers. The inflow of the group's products into the United States passed the half billion dollar level, about 60 percent greater than in 1972.

As a result of these trends, the USSR and the East European countries, together, recorded their fourth successive annual deficit in trade with the world.

The discussion that follows focuses on 1972, which is the latest period for which comprehensive statistics on world trade are available.

The year 1972 was one of increased global trade with the USSR and Eastern Europe. World shipments to the area advanced by more than one-fourth to $13.2 billion, considerably faster than the 12 percent average annual gain in 1967-71. The big expansion reflected not only the huge rise in the Soviet Union's grain purchases to alleviate severe crop shortages but also the greater role assigned to foreign trade in the economic planning of the Socialist nations.

The rise of 8 percent in world imports from the East to $11.2 billion, on the other hand, was smaller than the 10 percent average increase during the preceding four years. This stemmed mainly from a marked slowdown in the growth of deliveries from the Soviet Union; goods from Eastern Europe advanced at a slightly lower rate than earlier.

Despite the increases in 1972, trade with the East accounted for only a small portion of world totals, representing around 4 percent as it has for many years. For various countries, however, the trade was far more significant, often falling in the 10 to 20 percent range or even higher.

For East, sizable segment

For the East, on the other hand, the exchange of goods with the world constituted a substantial segment of trade. The share of the total in 1972 was close to two-fifths for the USSR and around one-third for the East European countries. Aside from the relatively small amount of trade conducted with Asian communist nations, the remainder took place within the area. This high proportion, which is in large measure planned, is ensured by the lack of free convertibility with world currencies and by the maintenance of some degree of convertibility in the East through the

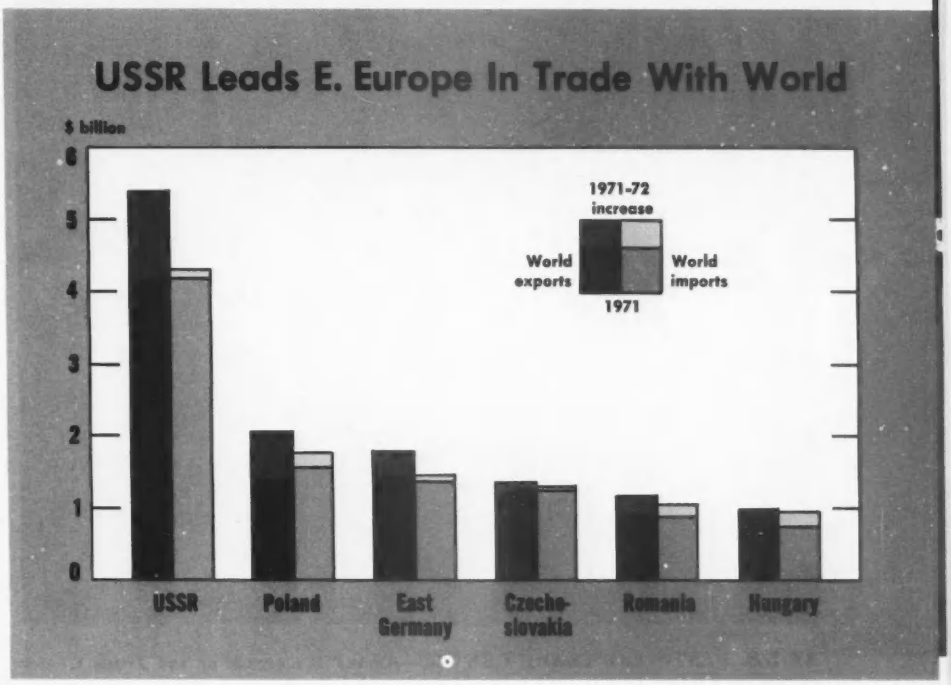
The latest detailed breakdown on U.S. East-West trade was released Jan. 22 by the Commerce Department in its* Export Administration Report—Third Quarter 1973. *The figures show that during the first three quarters of the year, U.S. exports to the Soviet Union increased by 200 percent over the same period of 1972, to Eastern Europe by 140 percent, and to the People's Republic of China by almost 80 times.

Detailed third quarter figures show U.S. exports to and imports from the individual countries, in millions of dollars, as follows: USSR, 278.1, 50.4; Poland, 62.0, 46.0; Romania, 18.0, 11.0; Czechoslovakia, 21.9, 8.0; Hungary, 3.2, 4.4; East Germany, 12.3, 3.0; and Bulgaria, 1.7, 1.1.

Export Administration Report—Third Quarter 1973 ***is available from the Bureau of East-West Trade, Room 4224, U.S. Department of Commerce, Washington, D.C. 20402 or any Commerce Department District Office.***

medium of the transferable ruble.

The Soviet Union, the leading market in the area, purchased more than two-fifths of the additional goods shipped there by world exporters in 1972. The rest of the increase was accounted for mostly by Poland and East Germany. Although the Soviet Union is also the area's principal source of goods, the expansion in world imports came preponderantly from Eastern Europe. The biggest increases were registered in arrivals from Hungary and Poland.



Germany is top exporter

The advance of nearly 40 percent in Germany's exports to the USSR and Eastern Europe in 1972 enabled it to strengthen its ranking position in this concentrated trade. That country alone provided $3.1 billion, or nearly 25 percent of all world shipments to the area, while another dozen suppliers, mostly in Western Europe, accounted for an additional 50 percent of the total.

Germany's shipments rose rapidly to East Germany, its top market in the group although not considered as a "foreign" country, but those to the USSR climbed twice as fast, by 55 percent. Steep increases were likewise reported in deliveries to Poland and Romania. The principal commodity gains were in textile machinery, machine tools, and steel. A significant rise was also noted in shipments of products for complete chemical and industrial plants.

French exports neared $1 billion with a gain of 27 percent from the 1971 level. The growth in deliveries to the Soviet Union was more rapid than to the rest of the area. Especially noteworthy increases occurred in shipments of wheat to the USSR and Romania. Exports of transport equipment, however, fell mainly as a result of the completion in 1971 of a large Soviet order for refrigerator cargo ships.

The doubling of U.S. exports to the USSR and Eastern Europe to more than $800 million in 1972 resulted in an extraordinary rise in this country's rank from tenth to third among world suppliers. The big increase reflected primarily the heavy grain shipments to the USSR. Substantial increases were also reported in shipments of oilseeds mainly to the Soviet Union and hides and skins to the East European countries.

Following closely behind the United States as suppliers were Italy and Yugoslavia, each with shipments just short of $800 million. The Italian rise was small as a further decline in exports to the Soviet Union, especially of electrical machinery, offset much of the gain in Eastern Europe centering in steel, synthetic fiber yarn, and chemicals. Yugoslavia, on the other hand, again boosted deliveries to the USSR as well as other area markets, especially Poland.

The expansion in Japan's shipments was among the sharpest of the leading suppliers. Particularly strong advances occurred in shipments of nonelectrical machinery, largely machine tools, to the USSR and Poland.

Lagging behind other top exporters, the United Kingdom recorded a modest gain in shipments. After falling in 1971, British deliveries to the Soviet Union showed a marginal recovery, principally in steel and nonelectrical machinery. Further increases were recorded in Eastern Europe, notably in nonelectrical machinery and chemicals to Poland.

India, the leading exporter to the USSR and Eastern Europe among the developing nations and eighth largest in the world, reported a substantial gain in deliveries to $559 million in 1972. Principal product movements were agricultural commodities, including tea, cashew nuts, tobacco, and coffee and light manufactures such as clothing, leather, and jute products. The greater part of the trade was with the Soviet Union.

A half dozen countries reported exports to the East of roughly a third to a half billion dollars in 1972. Austria, leading the group in sales mostly to Hungary, Poland, and Czechoslovakia, reported a sizable rise in this trade. Finland, with four-fifths of its area total moving to the USSR, showed steep gains in that market. Egypt, too,

AT U.S. EAST-WEST TRADE CENTER—*Among the events at the Trade Center opened in Vienna by the Commerce Department last year was a three-day seminar and demonstration by the Prud'homme Corp., Austin, Tex. Showing heat exchangers (above), the Texas firm, new to East European markets, developed sales leads in the $600,000 range and two joint venture prospects with contacts from Austria, Czechoslovakia, Germany, Poland, Hungary, Romania, Bulgaria and the USSR.*

shipped a high proportion to the same country but its increases were in exports to Eastern Europe. Canadian deliveries, meanwhile, more than doubled due principally to greater movements of wheat to the Soviet Union. Shipments from the Netherlands climbed sharply but those from Sweden rose only moderately as both countries continued to supply mostly the East European countries.

Principal Countries Trading With USSR And Eastern Europe

Millions of dollars

Country	1972 Exports to USSR and Eastern Europe		1972 Imports from USSR and Eastern Europe	
	Value	Percent change from 1971	Value	Percent change from 1971
World, total	13,236	26	11,189	8
Germany, Fed. Rep.	3,122	39	2,273	17
France	947	27	721	25
United States	819	113	321	44
Italy	790	5	1,112	24
Yugoslavia	788	17	793	1
Japan	737	37	694	20
United Kingdom	691	12	1,035	20
India	559	29	249	−9
Austria	458	18	442	16
Finland	449	36	498	−1
Egypt (Jan.-Nov.)	437	17	226	−6
Canada	355	109	101	28
Netherlands	333	31	308	21
Sweden	331	6	359	6
All other countries	2,420	17	2,057	−12

Note: Exports are generally valued f.o.b; imports, c.i.f. Eastern Europe includes Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania.

Farm, machinery sales climb

The world export advance in 1972 resulted largely from greater deliveries of farm products and machinery. Significant increases were also recorded in "other manufactures"—a miscellaneous group comprised mostly of semi-finished products and consumer nondurables—and in chemicals. These trends, and those pertaining to world imports which are discussed later, are derived from a detailed analysis of commodity data collated from the official foreign trade statistics of 19 countries accounting for four-fifths of world trade with the East.

Farm products shipped from the United States and Canada to alleviate the Soviet Union's crop shortfalls, cited earlier in this article, accounted for more than one-fourth of the rise in commodity movements to the area. Three commodities—wheat, corn, and soybeans—constituted around $600 million of the additional shipments.

The rise in machinery sales, representing about one-third of the world increase, originated almost entirely in Western Europe and Japan. Deliveries of metalworking machinery and textile equipment were particularly buoyant. The same sources of supply were principally responsible for the step-up in exports of "other manufactures," such as steel. West European countries were predominant in the expansion of chemical shipments.

Germany leads in imports

The Federal Republic of Germany also reported sharply increased imports from the East, particularly from Poland, East Germany, its leading source in the area, and the Soviet Union. Especially notable was the rise in imports of copper and chemicals. The

overall value of goods received by Germany from the East reached $2.3 billion in 1972, which was greater than the total of the next two largest purchasers, Italy and the United Kingdom.

Considerable increases in imports by these two countries pushed this trade over the billion dollar mark for each. Among the more important product advances were Soviet iron ore, steel, and petroleum for Italy and Polish coal and Soviet lumber for Britain.

France and Japan also reported rapid growth in imports from the East, the former's exceeding $700 million and the latter's almost reaching that level in 1972. France had substantial increases in nonferrous metals, particularly copper and aluminum from the USSR and meat from East Germany. Gains were reported by Japan in entries of Soviet lumber and coal as well as Polish coal.

The United States likewise showed a steep rise in this trade after a slight decline in 1971, boosting its value to over $300 million for the first time. The increases were largely in the inflow of platinum, palladium, chrome ore, and residual fuel oil from the Soviet Union, cooked hams and chemicals from Poland, this country's principal source of supply in the group, and distillate fuel oil from Romania.

In various other world markets, however, imports from the East were sluggish. Yugoslavia and Finland, among the larger outlets, reported little change in purchases from the USSR or Eastern Europe. Their total imports from the area remained close to $800 million and $500 million, respectively. In India, Egypt, and Iran, the leading markets for the area's goods among the developing nations, the trend in these imports was downward in 1972. Reduced arrivals of Soviet machinery were a key factor in this decline.

The increase in world imports from the East in 1972 centered principally in the miscellaneous category of "other manufactures" and in foodstuffs. The former group of commodities accounted for more than two-fifths of the additional purchases from the area compared with its customary one-third share of the total. Growth was especially strong in the inflow of metals—the platinum group, copper, and steel—textiles and clothing, and nonindustrial diamonds.

A steep rise in meat and meat preparations was almost entirely responsible for the advance in foodstuffs entries from the East. Increases were also substantial in imports of crude materials, notably wood and cotton, as well as coal and fuel oils.

BULGARIANS IN U.S. LICENSING AGREEMENT—*Ebway Corp., Union, N.J., having concluded the first U.S.-Bulgarian licensing agreement in recent years, greeted the representatives of the Bulgarian State Economic Trust "Resprom" recently. Ebway President Edward Bennett has his hand on the wheel of the electrical discharge machine for metal stamping dies that was due to be shipped to Bulgaria under the agreement. Clifford R. Lincoln and Dorothy Caramalis of the Commerce Department Newark District Office, at right; others are from "Resprom."*

World Trade With USSR And Eastern Europe

Millions of dollars

Year	Exports to USSR and Eastern Europe		Imports from USSR and Eastern Europe	
	Value	Percent change from previous year	Value	Percent change from previous year
1967	6,792	3	7,060	5
1968	7,264	7	7,662	9
1969	8,343	15	8,355	9
1970	9,699	16	9,341	12
1971	10,492	8	10,404	11
1972	13,236	26	11,189	8

Note: Exports are generally valued f.o.b.; imports, c.i.f.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

U.S. Promotions Overseas

Orthotic and Prosthetic Devices (Joint Export Establishment Program—JEEP). Paris Trade Center. Feb. 25-27. France, with the fastest growing economy in Western Europe, is making substantial expenditures for health care, and a promising market exists for aids to the physically handicapped. This event is specifically designed for U.S. companies that are not now active in the French market. Contact Patrick Willis, U.S. Department of Commerce District Office, 238 West Wisconsin Ave., Milwaukee, Wis. 53203, telephone 414-224-3473.

Computers, Office and Business Machines and Supplies Catalog Exhibition to Ankara and Istanbul. February 26-March 6. Turkey's economy is growing at an average annual rate of 7 percent, with industrial growth pacing the economy at a 12 percent rate. A wide variety of business equipment is needed, ranging from typewriters to electronic computers. The Turkish Government is supporting imports of business equipment through specific authorization of foreign exchange. For more information call Robert E. Peterson, 202-967-3973.

Food Processing and Packaging Equipment Catalog Exhibition. Hong Kong, Malaysia and Thailand. March 4-22. Both Thailand and Malaysia are agriculturally-oriented countries with high growth rates in food production. The Thai and Malaysian Governments back agricultural expansion programs. The demand for high quality food processing and packaging equipment is increasing rapidly, creating a very favorable market for U.S. products. Call Robert E. Peterson, 202-967-3973.

Electronic Production & Test Equipment Exhibition. Milan Trade Center. March 12-16. During 1972 the Italian electronics industry is estimated to have produced $800 million worth of electronic equipment and all trends point to substantial increases through this decade. In the past, most manufacturing processes in the Italian electronics industry were manual and automated systems were restricted to a few large manufacturers. Now, with recent wage increases and constant labor demands for higher wage rates the industry is investing heavily in automated electronic production and test equipment. Call Samuel S. Spaulding, 202-967-4508.

Fishing and Fish Processing Equipment Catalog Exhibition to Montevideo, Uruguay and Mar del Plata, Argentina. March 12-22. Product lines in finish processing equipment will be featured, as both countries are embarked on programs to rapidly expand exports of fishing industries. Call Robert E. Peterson, 202-967-3973.

Printing, Packaging and Bottling Equipment — GRAPHISPACK '74. Barcelona. March 15-24. This major fair is an excellent means for penetrating the growing market for printing, packaging, and bottling equipment. Spain's rapid industrial growth and rising per capita incomes are bringing about increased consumption of packaging products and printed materials. The resulting demand for advanced machinery by the printing and packaging industries offers U.S. manufacturers many opportunities for profitable sales. An important international exhibition held every four years, GRAPHISPACK attracts buyers from all of Europe, North Africa, and the Middle East. For more information call Robert B. Wallace, 202-967-3822.

U.S. Marine Navigation Communications, Instrumentation and Safety Equipment Exhibition (JEEP). Seoul Trade Center. March 20-22. This exhibition, limited to only 8 new-to-market U.S. firms, is the opening event for the new U.S. Trade Center in Seoul. The Korean shipbuilding industry is one of the nation's most rapidly expanding heavy industries. As part of a Korean Government expansion program aimed at making Korea one of the top ten shipbuilding countries in the world, 14 new shipyards will be constructed by 1985 that would enable Korea to build 4.5 million gross tons of ships yearly. This expansion program offers many opportunities for U.S. manufacturers of shipboard equipment. Call Carol Murray, 202-967-2215.

Biomedical Trade Mission to Poland, Yugoslavia and Austria. March 20-April 4. American firms selling biomedical equipment, including cardiological, thoracic, respiratory-pulmonary function-thoracic, pediatric, nephritic, operating room, general hospital and clinical and research laboratory equipment should find good sales opportunities in these countries. Call L. Carteron, 202-967-2973.

Light Industrial Packaging Equipment. Beirut Trade Center. (JEEP). March 25-29. Light industry in Lebanon has grown rapidly in recent years—industrial exports increased by about 25 percent in both 1971 and 1972 — and has become increasingly diversified. More efficient packaging systems are in increased demand. Opportunities exist for direct sales and for establishing representation. Call Jackson B. Hearn, 202-967-5767.

Pollution Control Equipment. Paris Trade Center March 26-29; Arles, France (optional), April 2-4. American manufacturers and suppliers of equipment for the control of air and water pollution, noise abatement, sewage treatment and solid waste disposal have an exceptional opportunity to enter into or to gain increased sales in the lucrative French market by displaying at these shows. French investment in pollution control equipment is substantial and growing fast. Rapid industrial expansion with its impact upon the environment has caused an affluent French people to examine the quality of life. Forecasts indicate that the French will spend about $575 million in this field during the next two years. A U.S. firm participating at the Paris Trade Center will reach a broad audience of customers from French industry and government, and may gain extra exposure in the south of France by displaying at Arles for an additional $300. Call John L. Wolf, 202-967-4942.

Mining Machinery and Related Transportation Equipment Trade Mission to Botswana, Zaire and Zambia. April. Each of these nations is dependent on imports of mining equipment in order to develop abundant mineral resources. While mining complexes in both Zaire and Zambia are becoming quite efficient—and copper is the main mineral involved—Botswana is just beginning to develop its minerals industry. An estimated $254 million will be expended for development of copper and nickel mining facilities. A commitment by the U.S. Export-Import Bank of $200 million is available in Zaire for mining expansion. Call Herb Socks, 202-967-3846.

Micrographics and Document Handling Systems. Tokyo Trade Center. April 1-6. Japan is an excellent market for U.S. micrographics equipment and document handling systems. Sales of micrographics products have more than tripled from $3.5 million to $11.6 million between 1968 and 1972 and are expected to reach $25 million by 1976. U.S. micrographics products supply about 30 percent of the Japanese market and account for almost all imports. In document handling systems an average annual growth of 10-20 percent can be expected during the period 1972-76. Call Suresh (Sam) K. Dhir, 202-967-2709.

Executive Level Trade Mission, Buda-

pest, April 7-21. Top level executives from U.S. industry will consult with key officials in Hungary to determine and define their mutual trade objectives. The Mission, sponsored by Commerce, represents an opportunity for direct contact with Hungarian ministry and industry officials. Appointments will be programmed for direct, private discussion, of sufficient duration for each Mission member to analyze the existing market potential and uncover specific opportunities for ongoing business. Call Fred E. Crosley, Jr., 202-967-3746.

Materials Handling and Construction Equipment Catalog Exhibition. Casablanca. April 8-13. Morocco's new economic plan, 1973-77, has an impressive target of $7 billion for investments, much of which will be channeled into industrial, airport, and seaport expansion and public building and private housing construction. The United States is already Morocco's second most important source of imports and the outlook for growth of this very promising market is favorable. Call Robert E. Peterson, 202-967-3973.

Structural Components and Systems (JEEP). U.S. East-West Trade Center, Vienna. April 9-11. The Eastern European construction industry generally lags behind that of the West in terms of quality, labor-saving equipment, and new systems of construction. Modular construction is the new wave. This promotion will help you reach the key East-West traders who, over the years, have built up the commercial contacts necessary to introduce your products into these new markets. Call Lou Nixon, 305-350-5267.

Stanki (formerly Mashstroy)—U.S. Machine Tool and Machine Building Equipment Solo Exhibition, Moscow. April 10-19. The USSR continues expanding many branches of industry, especially production of automotive vehicles. This expansion necessitates a corresponding increase in demand for machine tools. The current five-year plan calls for investments totaling over $31 billion for machine building equipment. Call Oleg Jerschkowsky, 202-967-3376.

Shipboard Engineering and Material Trade Mission to Korea and Taiwan. April 15-27. Recent market surveys and currency readjustments indicate the timeliness of this Mission. Of particular interest is determination of the governments to expand present shipbuilding facilities. Product categories recommended include: cargo control, machinery control, cargo handling gear, anticorrosion finishes and equipment, antipollution equipment, deck and engine room equipment, electrical equipment, hull equipment, galley and crews quarters equipment, materials for construction. Market research also indicates a real need for design and engineering services. Call David Brann, 202-967-4304.

Building Products and Construction Equipment Trade Mission to Hong Kong and the Philippines. April 17-25. In Hong Kong, in addition to its housing and school building programs, the local government plans a mass transit subway system, a second international airport, a new railway, and numerous automobile tunnels. In the Philippines, highway construction is also planned for connecting links to major cities, as is a commuter rail system to provide rapid mass transit for Manila. The Asian Development Bank and the IBRD are extending funds for the foregoing construction plans, with private sector participation featured. Call William J. Bushwaller, 202-967-4511.

Aviation Ground Support Trade Mission to USSR, Czechoslovakia and Hungary. April 20-May 4. Each of these nations is planning to increase expenditures where air traffic control is concerned because of vastly increased airport traffic. Call Larry Cozart, 212-967-3741.

Industrial Process Control and Measuring Instruments Exhibition. Paris Trade Center. April 22-26. High government priority for industrial investment and modernization in the booming French economy has resulted in a $330 million market for process control instrumentation in France. This year's 20 percent depreciation of the dollar versus the franc means a competitive price advantage for U.S. instrumentation. Call William S. Gaines, 202-967-4414.

Environmental Control Equipment (JEEP). Buenos Aires Trade Center. April 22-26. Emphasized will be specialized environmental measuring, testing and control instruments and apparatus, and other related scientific, laboratory, and industrial instruments. Suppliers of other equipment for environmental control operations are also invited to exhibit. Call George Pollard, 202-967-5010.

Audio-Visual Equipment (JEEP). Mexico City Trade Center. April 22-26. U.S. audio-visual techniques are greatly admired in Mexico as the best available anywhere. If getting into a position to profit from continuing sales in this growth market is your objective, this first such promotion by the U.S. Trade Center in Mexico City is the ideal opportunity. Call Porter Clary, 202-967-5040.

Advanced Biomedical/Biochemical Hospital Equipment. Stockholm Trade Center. April 22-26. "Intermed '74," the second such exhibition to be held at the U.S. Trade Center in Stockholm, provides an opportunity for U.S. industry to promote advanced equipment throughout the four Nordic countries (Sweden, Norway, Denmark, Finland). The Scandinavian market is due to expand by over 100 percent from 1971 to 1976, reaching a level of almost $110 million. All four countries have plans to build new hospitals, to add outpatient and long-term health care facilities to their already extensive hospital network, and to broaden the scope of existing preventive medicine programs. Call Robert Blake, 202-967-4462.

Analytical and Process Analysis Instrumentation Technical Sales Seminar to Brazil and Colombia. April 22-May 3. Brazilian and Colombian markets for instrumentation are growing rapidly, owing to a rise in overall production and quality control requirements. Both nations are entering a phase of economic development/industrial expansion where the need for more sophisticated instruments is real. An additional incentive for the entry of U.S. suppliers into these markets is the almost complete lack of local production of this type of equipment and instrumentation. Call Wyn Coates, 202-967-5826.

U.S. Consumer Goods Pavilion. Osaka International Trade Fair. Osaka, Japan. April 23-May 6. Japan is currently the largest foreign customer for U.S. consumer goods. Japanese expenditures in the consumer goods area are expected to increase 17 percent by the end of this year and double by 1975. Increased Japanese interest in U.S. consumer goods has been stimulated by the yen/dollar realignment and by the increasing affluence of the Japanese consumer. The Osaka International Trade Fair is a major commercial event in Japan, and an excellent forum to display goods. Call Robert Levine, 202-967-4057.

General Aviation Exhibition and Seminar, Maroochydore, Queensland, Australia. April 26-30. The rural and industrial sectors of the Australian economy are experiencing rapid expansion which is creating an ideal climate for increased sales of general aviation equipment. Sales potentials are now at the highest level since the late 60s. The exhibition will be adjacent to an airport with a 5,500-foot landing strip accommodating aircraft from cropdusters to executive jets. In addition to aircraft, this exhibition will also include displays of all other types of general aviation equipment. Call John Klingelhut, 202-967-3646.

Hospital and Medical Equipment Trade Mission to Algeria, Morocco and Tunisia. May 1-14. These countries together currently offer a $7 million market for hospital and medical equipment. This market is expected to expand dramatically over the next three to five years. New economic plans being initiated in each country place increasing emphasis on health programs, allocating millions of new funds annually for new equipment, hospital construction and clinics. Call Ed Wason, 202-967-4918.

Oil and Gasfield Machinery & Equipment (JEEP). U.S. East-West Trade Center, Vienna. May 2-4. Equipment of all kinds for petroleum exploration, drilling, and extraction is in short supply in Eastern Europe; quite often what is produced domestically is obsolete or unreliable. In many cases badly needed equipment is not produced within Eastern Europe and must be imported. Reflecting the high priority the petroleum industry has in the five-year plans of Eastern Europe, imports of equipment for this industry have almost tripled in recent years. This promotion will help you get in contact with the vital East-West traders who have had long experience in representing your types of equipment in the East. Call George Black, 214-749-1517.

Catalog Exhibit of Light Metalworking and Woodworking Equipment and Building Products, Beirut. May 2-5. Rapidly growing metalworking and woodworking industries in Lebanon, which account for over 16 percent of GDP, have taken on increasing economic importance. Building products are also in great demand in Lebanon's generally expanding economy. U.S. suppliers have the added benefit of dealing in a private enterprise atmosphere, where they are price competitive. Call Robert E. Peterson, 202-967-3973.

Harbor & Dockside Equipment (JEEP). Singapore Trade Center. May 8-10. Singapore is the fourth largest port in the world in terms of tonnage handled. Ten ships enter or leave the port every 15 minutes. As a natural corollary, Singapore is striving to become a major center of shipbuilding and repair. This exhibition is limited to new-to-market U.S. participants and is designed to put them in contact with potential representatives that can handle sales on a continuing basis. Call your nearest U.S. Department of Commerce District Office or George Dolan, 415-556-5866.

Trade Mission, Communications Equipment and Services, to Saudi Arabia, Kuwait, Bahrain and Qatar. May 10-23. Each of these Arab nations has a growing need for new types of communications equipment and sophisticated know-how in its installation and operation. Opportunities lie particularly in the area of telephone development, but encompass airport development (or air traffic control), TV and radio broadcast equipment, and modernization of armed forces communications systems. Call Larry Cozart, 202-967-3741.

Food Industries Equipment. Mexico City Trade Center. May 13-17. A growing population and a more affluent consumer have raised demand for processed foods to unprecedented levels and created a record market for modern equipment for the food industry. Standards for processed foods established by the Mexican Government have intensified interest in the latest U.S. equipment, regarded in Mexico as the best anywhere. Call Porter Clary, 202-967-5040.

Equipment for the Cosmetic, Pharmaceutical and Food Industries. Paris Trade Center. May 13-17. These industries comprise major growth sectors in the booming French economy. The increasingly strained productive capacity, greater interest in more advanced packaging techniques and a public becoming vocal in its demands for quality control and testing of products in these industries are all placing a heavier burden on the import sector. Call Andre Williams, 202-967-3748.

Printing & Graphic Arts Equipment Exhibition. U.S. Trade Center, Frankfurt. May 13-17. The market for sophisticated labor-saving U.S. equipment in the German printing and graphic arts industries is expanding rapidly, as printers actively seek more efficient systems organization to boost their productivity. The U.S. share of German imports of printing and graphic arts equipment averaged about 25 percent of total imports from 1970 through 1972, or more than $17 million per year, and is expected to continue to grow at an annual rate of 15 percent. Call Don C. Schmadel, 202-967-2177.

Pulp and Papermaking Equipment. Stockholm Trade Center. May 13-17. Pulp and paper processing are cornerstones of the Swedish and Finnish economies, and are also important industries in neighboring Norway and Denmark. There are some 300 pulp and paper plants in the Nordic area, seeking technology which will make them competitive. Sweden alone will have invested $180 million in this industry by the end of 1973. This exhibition will feature pulp and papermaking equipment, including components; industrial process controls; computer systems; pollution control devices; and materials handling equipment. Call William Beiring, 202-967-3276.

Process Control Instrumentation Exhibition. Buenos Aires Trade Center. May 13-17. Argentine imports of process control instruments grew from $8.1 million in 1969 to approximately $15 million in 1972. Major expansion projects, other modernization developments and replacement needs are expected to generate a very active demand for imports of process control instruments into Argentina in 1974. The United States is the leading supplier of process control instruments, with 50 percent of the import market. Call George Pollard, 202-967-5010.

Data and Telecommunications Equipment. Milan Trade Center. May 14-18. Demand for computers and computer-related equipment in Italy will triple over the next five years, with U.S. equipment and services expected to dominate the near $300 million market. In addition, the Italian Government is planning to spend about $3.5 billion in the telecommunications sector over the next three years. Research indicates that virtually every large Italian government and industry organization is planning projects for data transmission between headquarters and branches. The Italian economy is expected to grow by 5 percent this year. Call John Priamou, 202-967-4377.

Interschul—Educational Materials Catalog Show to Dortmond, Germany. May 18-25. The educational budget for West Germany is expected to approach 6 percent of GNP by 1975, as $16 billion worth of systems and equipment will be required to accommodate increased student enrollment. This Catalog Show will be held as part of a major international fair which will provide increased exposure and sales opportunities for U.S. suppliers. Call Robert E. Peterson, 202-967-3973.

Food Processing and Packaging Equipment—ANPAC '74. Sydney. May 20-24. This exhibition will offer U.S. manufacturers an opportunity to penetrate the rapidly expanding Australian food processing and packaging markets. Australian distributors and customers agree that recent currency revaluations coupled with the Australian 25 percent across-the-board tariff reduction afford U.S. manufacturers a broad range of exciting, new sales opportunities. This exhibition, cosponsored by the Department of Commerce and the Australian National Packaging Association, is sure to attract key buyers from throughout the Australasian region. Call John Klingelhut, 202-967-3646.

Instruments, Controls and Analytical Equipment for Industry and Science. Taipei Trade Center. May 20-24. Taiwan is a significant importer of process instruments and controls. Imports and consumption of these products are at record levels with excellent immediate and long-range sales prospects. U.S. exports of these products jumped from $3.7 million in 1968 to $7.4 million in 1972. Equipment for a full-range of on-stream industrial operations, quality control, research and development, and scientific applications will be displayed. Call Harold A. Ogburn, 202-967-2413.

Hospital and Medical Equipment Catalog Show to Lagos. May 20-24. The hospital and medical services field in Nigeria is rapidly expanding and should continue this growth through 1980, especially in view of the recently approved "Third Development Plan." A Commerce-sponsored Hospital-Medical Trade Mission to this country in 1973 was extremely successful in generating immediate sales of U.S.-source products, due to their price competitiveness and continued good quality. Nigeria's strong economy, substantial foreign exchange reserves, and favorable commercial climate make this one of the most attractive markets in Africa. Call Robert E. Peterson, 202-967-3973.

Metal Surface Finishing and Treatment Equipment. Tokyo Trade Center. May 20-25. In 1972 the Japanese market for metal surface finishing and treatment equipment and accessories amounted to $975 million. This market is expected to increase by 30 percent during 1973 and 10 percent annually for the next three years. U.S. products which are unique, technologically advanced, labor-saving, or non-polluting have considerable sales prospects in the dynamic Japanese metalworking industries. Call Bill Dawson, 202-967-4056.

Petroleum Equipment and Process Control Instrumentation, Catalog Exhibit, Amsterdam. May 28-June 2. This exhibit, part of PETROTECH-74 (International Exhibition & Congress for Petroleum Technology), will include catalogs from U.S. firms manufacturing machinery and equipment for the petroleum industry—including pollution control equipment. The demand for U.S. equipment is great, as it incorporates the very latest in technology, and the exhibit offers an excellent opportunity for exposure. Call Robert E. Peterson, 202-967-3973.

Health-74, International Exhibition for Health Systems. Moscow. May 28-June 10. The Soviet Union is undertaking a

Sales opportunities in 7 U.S. commercial exhibitions, 10 catalog exhibitions, 28 shows at the 12 U.S. Trade Centers, 10 trade missions and 1 technical sales seminar are being offered to present and potential U.S. exporters between now and July.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Beirut, Buenos Aires, Frankfurt, London, Mexico City, Milan, Paris, Singapore, Stockholm, Sydney, Tehran, and Tokyo. Trade Centers are scheduled to open in Taipei and Seoul in March. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **Write:** *Director, Office of International Marketing, Room 4015, U.S. Department of Commerce, Washington, D.C. 20230.*

U.S. specialized trade missions and technical seminars are comprised of groups of U.S. businessmen organized by the U.S. Department of Commerce to travel abroad to promote the export of U.S. goods and services produced by their particular industry. **Write:** *Trade Missions, Room 4219, U.S. Department of Commerce, Washington, D.C. 20230.*

vast program of expanding and improving its health system. Current domestic supplies have not been able to meet the demand for medical instrumentation and laboratory equipment. To overcome these deficiencies, the USSR has had to turn to imports to compensate for the gap between production and consumption as domestic supplies have been able to supply only 72 percent of demand. Call Oleg Jerschkowsky, 202-967-3376.

Hotel and Restaurant Catering Equipment Catalog Exhibition. Lesotho and Swaziland. June. Lesotho and Swaziland are two of the newest, fastest-growing vacation areas in Africa, which attract thousands of tourists year-round. This introductory trade promotional activity is geared to help meet the growing demands of this area's burgeoning tourist industry. Call Robert E. Peterson, 202-967-3973.

Textile Machinery and Equipment Trade Mission to Brazil, Venezuela and Colombia. June 1-14. Increasing emphasis on modernization and expansion of plant facilities make these three countries excellent markets for U.S. source equipment, material and know-how. Brazil, especially, is refurbishing plant facilities in order to increase export capabilities within Latin America. Call Herb Socks, 202-967-3846.

Numerical Control Machine Tools and Related Equipment Exhibition (JEEP). Buenos Aires Trade Center. June 3-7. Argentine manufacturers have become increasingly aware of numerical control machine tools as a means of improving the quality and exportability of their products. There is no local production of numerical control machine tools. Manufacturers of components and equipment essential for the servicing of these machines are also invited. Call Vicky Eicher, 202-967-4580.

Posidonia Fair—Business Automation and Materials Handling Equipment for Shipping Industry: Ship Building and Repairing Material, Catalog Exhibit. Athens. June 3-9. Shipping is one of Greece's major industries and since 1967 has been undergoing continued expansion. Today, tonnage of the Greek merchant fleet is approximately 40 million tons and the number of vessels over 4,300. Funding, insurance and tax incentives have been granted local industry to encourage establishment of offices and facilities along with expansion. This Catalog Show will be held as part of Posidonia's International Shipping Exhibition and, consequently, offers U.S. suppliers a timely opportunity to gain an additional foothold in the local market. Call Robert E. Peterson, 202-967-3973.

Biomedical Equipment Exhibition/Symposium. Milan Trade Center. June 8-12. The Italian biomedical equipment market is growing 14 percent a year and the U.S. share is increasing. Opportunities are especially good for U.S. manufacturers of implantable pacemakers, I.P.P.B. respirators, pediatric respirators, artificial kidneys, gamma cameras, electronic blood cell counters, automated sample analyzers, echoencephalographs, surgical pacemakers, spectrophotometers and other diagnostic equipment. Contact nearest District Office or call Sam Spaulding, 202-967-4508.

Trade Mission, Computer Software, to Belgium, the Netherlands, and West Germany. June 13-27. Rescheduled from its earlier date, this Mission has now been expanded to include stops in Brussels, Amsterdam, Dusseldorf, and Frankfurt. These cities offer expanding software markets, with studies indicating combined sales of over $190 million in 1973 and a market growth which has averaged 25 to 30 percent annually. Opportunities exist for identification, utility and application packages, as rising labor rates and changing energy supplies force greater automation and more sophisticated use of existing installations. Call Bradley Tyrrell, 202-967-4705.

REPUBLIC OF CHINA PREMIER AT U.S. PROMOTION — *A Commerce Department consumer goods promotion at a Taipei department store included an exhibition of moon rocks from the U.S., which interested Taiwanese Premier Chiang Ching-kuo (in foreground) and other officials. For full details, see Pages 9-11 of Jan. 7 issue. That story also had details on a related promotion in Japanese stores, and a caption inadvertently identified the Premier's group as Japanese buyers.*

Hotel and Restaurant Equipment. Frankfurt Trade Center. June 17-20. Owners and managers of German hotels, restaurants and resorts are eager to obtain more efficient, labor-saving U.S. manufactured equipment for food preparation and service, airconditioning and refrigeration, and cleaning, maintenance and sanitation. The high quality, reliability and productivity of U.S.-made equipment has always been widely recognized in Germany, and this equipment is now price competitive as a result of the dollar devaluation. Other factors indicating a flourishing market include increasing costs and labor scarcity, the desire to expand and modernize facilities to meet the demand of a more affluent German and European consumer with more leisure time and a German Government program to systematically upgrade the nation's tourist facilities. Call Jerry Morse, 202-967-2177.

Aviation Ground Support Equipment & Aircraft Services Exhibition. U.S. Trade Center, Singapore. June 17-21. The timing is appropriate for U.S. initiatives on an expanded scale to sell aviation support equipment in this market. At the present time the entire Singapore marketing area is experiencing an economic boom, partly brought about by world demand for local commodities and labor. In addition, the region is industrializing and enjoying high rates of foreign and domestic investment. Also, tourism is on the increase, and the demand for air travel and air freight is growing faster than in any other part of the world. Call Lee Barnes, 202-967-5545.

Telecommunications Equipment. Mexico City Trade Center. June 24-28. The Mexican Government has placed high priority in its overall economic development plan on improvement and extension of telecommunications facilities: from provision of telephone links to rural villages to installation of sophisticated avionics systems. Furthermore, the larger private firms are considering installation or expansion of their own telecommunications systems. Mexico's apparent consumption of this equipment has been growing about 17 percent annually, reaching $167 million in 1971. A full 60 percent of this total must be imported. Call Porter Clary, 202-967-5040.

Food Processing Machinery and Equipment. Buenos Aires Trade Center. June 24-28. The Argentine market continues to need imports of items incorporating the latest processing techniques, but not necessarily high volume equipment. Special interest items include processing machinery and equipment for the fishing, meat, wine and fruit and vegetable processing industries. Call Carolee Heileman, 202-967-2322.

Laster, Electro-Optical and Photographic Systems. Stockholm Trade Center. June 24-28. The Nordic countries represent a growing market for American optics-related instruments, systems and components. In 1972 U.S. suppliers exported $12 million worth of these products to Denmark, Finland, Norway and Sweden. Call Cliff Stanley, 202-967-4461.

Automotive Parts Exhibition. Tokyo Trade Center. July 22-26. The Japanese auto industry is actively looking for U.S. sources of auto parts and accessories to be incorporated in their cars and trucks. Rapidly rising prices and uncertain supplies of Japanese-made components may result in many large volume, long-term contracts between American original equipment manufacturers and the 11 Japanese automobile manufacturers who make up the second largest auto industry in the world. Contact Randall Miller, 202-967-2709.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Foreign Investment Services Staff, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce Office.

OPIC indicates that the country involved is eligible for investment insurance coverage written by the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

0191 — **GUINEA** — Government seeks American majority equity participation to establish a **large agricultural complex** in northwestern Guinea. The complex would include cattle, rice, cereal crops and tropical fruits. The Government would provide as its contribution a 20-25 year rent-free concession on 10,000-50,000 acres of land. Ten to fifteen percent of cattle production would be for domestic consumption; the remainder would be exported. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74026. OPIC.

2033—**CHILE**—A large distributor of food products wants a U.S. firm with **fruit/vegetable canning and international marketing** experience to undertake a market survey to determine the feasibility of establishing a large canning factory. If the project appears feasible, the firm would like technical assistance and equipment to construct the plant as well as marketing its output. Presently, the firm is contemplating a range of direct investment possibilities from 100 percent Chilean capital with foreign participation limited to licensing and marketing to some type of joint investment. Guillermo Elton A., General Manager, Compania Distribuidora Nacional S.A., Casilla 184-D, Santiago P-74025.

2041—**ZAIRE**—The Bureau des Investissements, Government of Zaire, is considering the possibility of a joint venture, which would include the Government and private Zairian investors, to establish a **flour mill and a starch plant.** Both facilities would use manioc (cassava), and if economically justified, the two might be combined. The desired outputs are one ton per hour of flour for local consumption and 10,000 tons per year of food-quality starch for export. The total cost of the projects is estimated at $7 million. Firms interested in providing engineering services, machinery procurement and installation, or completed projects on a turn-key basis should write Alexander T. Cole, Advisor, United Nations Industrial Development Organization, B.P. 7248, Kinshasa. P-74029. OPIC.

2211—**KUWAIT**—A large group of local investors is seeking contact with an American firm to establish a **cotton textile mill.** The American company would take on a turn-key contract including a feasibility study through design, construction and management. Qualified firms only should contact Foreign Investment Services Staff, U.S. Department of Commerce, Room 4021, Washington, D.C. 20230. P-74018.

3079—**ITALY**—Well known sporting facility builder seeks exclusive distributorship and/or licensing agreement for manufacture of **special compounds of granular plastics and synthetic resins** to be used in lieu of soil for construction of tennis courts, sport fields, race tracks and other projects. Rag. Lorenzo Perosino, Manager, Perosino, Ragionier Lorenzo, Via Fratelli Canepa 130-C, 16010 Serra Ricco, Genoa. WTDR. P-74027.

3241—**AUSTRALIA**—Collaboration with U.S. cement company to **develop large limestone deposits** in New Guinea and the Australian State of Tasmania sought by substantial engineering and consulting firm. The deposits are near the coast and preliminary plans call for shipment of clinker to large cities in Australia, Southeast Asia and the West Coast of the United States. Grinding plants would then be established for servicing local cement needs. Initial production of one million tons is envisaged, with about half going to the Sydney and Melbourne areas. Cost of the proposed venture is estimated at $30 million. K. J. Griffith, Managing Director, Tower Research and Development Corp. Ltd., 15 Young St., Sydney, NSW 2000, Australia (Tel.: 241-2516; Cable: TOWER). P-74030.

3452, 3540, 3670—**KOREA**—A major trading company with a number of business interests seeks joint ventures. The firm is interested in the production of **bolts, nuts, rivets and washers; metal-forming machine tools; and electronic components.** Wants technical know-how and capital from U.S. participants. One of the firm's subsidiaries currently makes electric tools, switches and related products. Other affiliates produce textiles, wigs and synthetic leather. The company maintains overseas branch offices and reports annual sales of $2.5 million. Chung Won Park, president Seoul Trading Co., Ltd., C.P.O. Box 104, Seoul. Additional assistance is available from Dong Ha Cho, Executive Director, Korea-U.S. Economic Council, Korea Trade Center, C.P.O. Box 6754, Seoul. P-74019. OPIC.

3550—**LIBERIA**—Joint venture to build **evaporative salt-making plant in Ivory Coast.** Should be expandable system with annual capacity of 30,000 tons. Company claims formalities involved in construction and operation of facility have been cleared with Ivory Coast Planning Ministry. Liberian firm presently engaged in construction activities. Nohad J. Gemayel, Vice President, Monrovia Construction Corp., Monrovia. P-74020. OPIC.

3559—**INDIA**—Seeks license to fabricate **low pressure chemical equipment.** Needs technical assistance, designs. Product interests include vessels and tanks (stainless/carbon steel), pressure vessels, distillation shells, evaporators, dryers, lead-lined vessels, auto-claves and agitators. Proposed annual capacity of the facility, based on two shifts, would be 3,500 tons. Indian company has obtained 26 acres in an industrial estate in Madhya Pradesh State. Has begun construction of production facilities. Indian Investment Centre, 708 Third Ave., New York, N.Y. 10017. P-74035. OPIC.

3621—**FRANCE**—Seeks licenses to manufacture **collector rings for electric motors and electric motor transmissions for industrial sewing machines.** The French firm produces industrial and household sewing machine motors, and wants to expand its product line. P. Agnes, Lustig-Bilboa S.A., 3 Rue Du Dr. Lannelongue, 92120 Montrouge, France. P-74021.

3639 3822 — **BELGIUM** — Joint venture, licensing agreement or subcontract with American firm for production of **water heaters, boiler sub-assemblies, safety valves for gas burners and precision tools** sought by large Belgian metal fabrication company. Firm established in 1970, employs 600 and has 1.2 million square foot plant in Brussels. Consulate General of Belgium, Industrial Sec., 50 Rockefeller Plaza, Suite 1104, New York, N.Y. 10020. P-74033.

3670—**INDIA**—Seeks license or similar agreement to establish **electronics project at the Santa Cruz Electronics Export Processing Zone** near Bombay. The Indian firm wants to manufacture high speed transistors, silicon control rectifiers, special types of connectors, silicon integrated circuits and plastic film, ceramic and electrolytic capacitors. The company is interested in obtaining technical assistance, would consider financial participation by an American concern. Indian Investment Centre, 708 Third Ave., New York, N.Y. 10017, P-74032. OPIC.

3679—**KOREA**—Leading manufacturer of electrical and electronic products seeks joint venture to produce **integrated circuits.** Firm's present products include radios, TV receiving sets, refrigerators, mixers, fans and air conditioning units. Subsidiary companies supply wood cabinets, speakers, sheet metal parts and resistors. The company is a market leader in Korea's home appliance field; has enjoyed expanding business volume over past few years. Has technical assistance agreements with several well-known foreign companies. Sales last year exceeded $53 million. Sung Chan Park, President, Gold Star Co., Ltd., Dae Woo Bldg., 3-106,

1-Ka, Do Dong, Chung-Ku, Seoul. Additional assistance is available from Dong Ha Cho, Executive Director, Korea-U.S. Economic Council, Korea Trade Center, C.P.O. Box 6754, Seoul. P-74036. OPIC.

3691—TRINIDAD—Seeks license to **assemble automotive batteries.** Firm is involved in distribution of automotive spare parts and accessories. Also assembles motor vehicles. Has some equipment to handle battery operation. Bolan Amar, Managing Director, Amar Auto Supplies Ltd., 177 Tragarete Rd., Port-of-Spain, Trinidad, W.I. P-74034. OPIC.

3861—TUNISIA—Seeks licenses and/or joint venture to manufacture **photographic plates (x-ray) 60 tons/year; negative black and white films (rolls) 40 tons/year all formats; chemicals for film processing 100 tons/year, supports for films (acetate or cellulose).** Capital for project would be made available from local partners and long term bank loans. U.S. investors would be required to supply equipment, training of personnel and technical assistance. U.S. suppliers of equipment to manufacture these items are also invited to send documentation and price lists for use in further study of project cost and feasibility. Mr. Zmitri, Petroleum Engineer, TIDACO, 63 Ave. Jean Jaures, Tunis. P-74028. OPIC.

8911—IRAN—An engineering firm seeks a partnership arrangement with an American firm of **consulting engineers** to improve the company's qualifications for various public projects now under study. Firms with experience in the following fields are of interest: design and engineering of water systems, sewage treatment, ground water, agriculture, animal husbandry, and geology. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74022. OPIC.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the U.S. under licensing agreements or in partnership, write the Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248) referring to the appropriate file number.

GERMANY—A firm is offering for manufacture in the United States by an American company its **improved piston for diesel engines.** The firm claims compression and ignition spark pressure will increase by 8 to 10 percent, and that medium pressure, engine torque and power will increase 30 percent at unchanged r.p.m. File 2525

SWITZERLAND—A company specializing in R&D in **treatment of industrial waste water** is offering for U.S. production its new, so-called splitting plants, which are used to separate water from emulsified mineral oils and other polluting elements. The process does not require heat or compressed air. It operates with low-priced industrial chemicals. The system can be produced as permanent installations or mobile units. File 2526

SWITZERLAND—An inventor specializing in EDP applications, offers a license for a **hand-writing system used with EDP systems.** Hand written information is fed directly into data processing units, and the written characters are read by a unit with 16 photo-cells. File 2527

GERMANY—A manufacturer of **chocolate, especially frozen chocolates,** with a market established in the United States, is interested in a production joint venture in this country. The German firm will provide the machinery and product and technical know-how. File 2528.

JAPAN—Company is interested in joint ventures and/or licensing agreements with U.S. firms producing **incinerator systems and sewage treatment equipment;** and is interested in making capital investment in a **compressor manufacturing operation on the West Coast** with annual volume of approximately 250,000 units. File 2529.

Report Details Okinawa Market For Pleasure Boats, Marinas

A recent-four page report from the U.S. Consulate in Okinawa states that there is an estimated market for 1,700 pleasure boats in Okinawa between now and 1975. There will also be a demand for related equipment such as outboard engines and marine electronic gear, and for repair and maintenance facilities and equipment. Much of this market stems from Japanese tourists.

In Okinawa and Japan, the boat seller usually must sell a marina space along with the boat or arrange for the buyer to get one. Therefore, U.S. suppliers should consider buying or building boat docks and repair facilities, perhaps in partnership with a local firm.

The report includes representative prices of boats and equipment made in Japan. For a copy of the report, contact George Delgado, Transportation and Capital Equipment Division, Room 1120, BDC, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-3294).

Information on the overseas boat market is also available from William Rosenfeld, National Assn. of Engine & Boat Manufacturers, 537 Steamboat Rd., Greenwich, Conn. 06830. P-73762.

Quebec Seeks New Investment; Pinpoints Favored Prospects

The Quebec Ministry of Industry and Commerce (MIC) recently initiated a campaign to encourage new investors to establish enterprises in the province. The MIC has pinpointed 15 manufacturing industries whose growth can be stimulated by industrial location factors available in Quebec.

Reports have already been released on two fields: telecommunications and computers and mini-tractors and attachments. Studies on the other key sectors will be completed over the next several months. The reports include detailed cost-profit studies and describe incentives and assistance provided by the Quebec Industrial Development Corp. To backstop the program the Ministry plans to establish a data bank on each municipality in Quebec. The bank will contain information on population density, labor, tax rates, communications and transport, housing, availability of plant sites and other factors. To obtain additional details, write Quebec Government House, 17 West 50th St., New York, N.Y. 10020. P-74002.

New Booklet Outlines Opportunities In Korea

The Korea-U.S. Economic Council in Seoul has recently issued a publication, "Business Opportunities in Korea," designed to help American firms identify areas of greatest potential return for investment in Korea. This publication features a recently compiled list of industries in which the wage content of value added is fifty percent or more and in which manufacture is especially encouraged by the Korean Government.

The Council points out that Korea's labor and infrastructure capabilities are at the level of sophistication necessary to support modern industrial technology, but can still be maintained at reasonable cost levels. It further notes that areas of high technical and educational competence such as Korea will become of increasing interest to potential foreign investors. A portion of the publication is devoted to Korea's growth in the 1960's and to the government's plans to expand international participation.

Copies of the booklet "Business Opportunities in Korea" can be obtained from the Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

Further information on the Council's activities is available from Mr. Dong-Ha Cho, Executive Director, Korea-U.S. Economic Council, C.P.O. 6754, Seoul, Korea or from William Henderson, Executive Director, U.S.-Korea Economic Council Inc., 88 Morningside Drive, New York, N.Y. 10027 (212-749-4200). P-74023.

Malaysian Investment Mission Plans March Visit To U.S.

A delegation of senior Malaysian Government officials plans to visit the United States from March 3-25. Their tentative schedule includes stops in New York, Chicago, Charlotte, Houston, Los Angeles, San Francisco and Honolulu.

In conferences with executives of U.S. firms, members of the delegation will review economic development in Malaysia, industrial financing, monetary policy, incentives and facilities for foreign investment. The group is also prepared to hold individual discussions with American companies contemplating investment.

Firms interested in participating in these conferences can obtain further information from Subra Maniam, Director, Federal Industrial Development Authority of Malaysia, The Transamerica Pyramid, 600 Montgomery St., San Francisco, Calif. 94111. P-74024. OPIC.

Ecuador Wants U.S. Firms To Aid Fertilizer Industry

Ecuador's recent emergence as an oil exporting nation has dramatically increased its foreign currency reserves and provided the means to implement an ambitious economic development program.

Agriculture is receiving priority development emphasis and the country seeks U.S. imports of fertilizer, as well as American firms to participate in establishing fertilizer production facilities based on petroleum and natural gas.

Interested firms should write: Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74001.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, Room 1322, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material must specify country, commodity, foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

Direct Sales

Foreign private firms are interested in agency agreements and/or distributorships for these products. See also "Representations" listings.

Building construction

●15100—CHILE—Petroquimica Chilena S. A., a Government-owned company, has approval to construct a plant to manufacture fishing nets. The project is estimated at approximately $2.7 million in foreign costs, which the firm hopes to obtain at 10-year, 6 percent terms. The plant will process locally produced nylon into cables and fishing nets with a designed capacity of 1,000 metric tons of cable and 850 metric tons of knitted nets per year. The location is expected to be either in the Provinces of Tarapaca or Arauco. The soil conditions are being investigated to decide on the appropriate location. Construction is scheduled to start in July 1974 and be finished in February 1976. The company has requested selective bids for acquisition of machinery, technical assistance and basic engineering. A decision on this is expected soon. Interested firms should contact: Petroquimica Chilena S. A., Teatinos 20, Of. 43, Casilla 284-V, Santiago.

Knitting mills, products

●16100 — EL SALVADOR — The Ministry of Public Works invites road building engineering contractors from Inter-American Development Bank member countries to send their qualifications, in specially provided forms, in Spanish in order to be qualified as bidders for: a) paving five stretches of an 80-km-highway and b) reveiting and compacting three stretches of highway of a total length of 52.5 kms., all at an estimated cost of $10 million, to be financed by the IDB under Loan Contract GOES-IDB-321/SF-ES. No tender number has been provided yet. This is the second phase of the program for improving and reconditioning 280 kms. of highway. Invitations to tender have not yet been issued. Bidder qualifications must include: a) information on experience in performing similar works, b) ownership of specialized roadbuilding equipment required for this work, and c) possession of technical and financial capacity. Qualification data forms to be completed by interested bidders are available free of charge at: Proveeduria Especifica de Obras Publicas, 12 Calle Poniente No. 228, San Salvador, El Salvador, Central America. Completed qualifications data forms must be received by the above office no later than Feb. 25. Two sets of these forms, and copies of the official announcement of the Ministry of Public Works are being sent to the Commerce Department by the U.S. Embassy in San Salvador and will be available from the Construction & Bldg. Materials Program, Room 2118, U.S. Dept. of Commerce, Washington, D.C. 20230 ★(202-967-3602).

Heavy construction, except highway and street construction

●16200—MALAYSIA — The Malaysian Ministry of Communications invites experienced contractors wishing to tender for a part of the construction of Kuantan Port to register with the consulting engineers, Bish and Partners B.V., Holland. The Government of Malaysia entered into a loan agreement with the Asian Development Bank which requires that prequalification of contractors is also subject to approval by the Bank. Planned works will comprise placing of sand fill, drainage works and construction of sand drains (optional for client) and all dredging necessary for the port, including reclamation of land and disposal of spoil. It will be tendered as Contract B/C. Works under this project are scheduled to commence the third quarter 1974 and to be completed within two and a half years from the date of commencement. The scope of the work involves the clearing of land, including swamp area, the performance of drainage works in the cleared area, placing approximately one million cubic meters of excavated sand fill, the construction of vertical sand drains (optional for client), dredging of about 7 million cubic meters of sand from future harbor basins and discharging sand into the future port area (about half million cubic meters to form a channel roughly 2 miles from the harbor entrance; the latter quantity sand is to be disposed of at sea), and dredging of about 5½ million cubic meters of silty clay spoil from future harbor basins (about 4 million cubic meters of clay will be discharged into marshy land north of port area and remainder disposed of at sea). The successful tenderer will note that works may vary depending upon the result of a sand drain/surcharge test, which is being carried out. Government dredge-contractors should note that a cutter suction dredge belonging to the Government of Malaysia is available for hire. Overseas contractors may form joint ventures with Malaysian contractors for the purpose of executing works. Applicants are required to furnish detailed information about their company, including the names of directors/partners, date of registration, paid-up capital, affiliations, bankers and business activities during the past 5 years, particulars of works similar to the above carried out or in progress, and applicant's principal equipment available for the use of above works. Experienced contractors are requested to obtain copy of the prequalification questionnaire from one of the following addresses: The Project Director, Kuatan Port Project; Consulting Engineers, Bish & Partners B.V., Koninginnegracht 84-86, The Hague, Holland; or the Manager, Far East, Consulting Engineers, Bish & Partners B.V., Wisma Damansara, 2nd Floor, Jalan Semantan, Kuala Lumpur 23003, Malaysia. One copy of the completed questionnaire, together with all other relevant documents should be sent to each of the above addresses. Contractors may submit prequalification documents for any or all contracts for the Kuantan Port construction for which prequalification notices appear. Contractors who have already submitted prequalification documents for another Kuantan Port contract need only submit documents relevant to their experience in works to which this prequalification refers. Prequalification documents should reach addressees in The Hague and Kuala Lumpur not later than February 22.

●16200—NICARAGUA—Bids are being requested for the forthcoming potable

water construction works in the city of Granada, which include supply and installation of approximately 61 kilometers of cast iron, asbestos cement, and PVC pipe, in diameter from 2 to 16 inches. Tender number is Licitacion AA/75. Bid deadline is March 1. Bid documents are available for US$72 (plus approx. US$3 for airmailing) from: Departamento Nacional de Acueductos y Alcantarillados (DENACA), Apartado Postal 968, KM. 6 Carretera Norte, Managua. Each offer must be accompanied by a US$28,571 bid bond and a 20% performance bond.

Knitting mills, products

2253335 — SWEDEN — Sweat shirts, printed & finished. Reply to—Mr. Bo Holst, Mercus AB, Box 15023, S-161 15 Bromma. Telephone: 08/26 27 35.

Yarn, thread mills, products

22820 — BELGIUM — Caprolaciam (allegedly a raw material for making artificial textile fibers) 50,000 tons;—3449452 Reinforcing bars for concrete, 6mm x 22-mm, 100,000 tons; reinforcing bars for concrete, 6mm x 32mm, 50,000 tons. Delivery f.o.b. east or west coast. Firm, est. 1968, acts as engineering & financing consultant specializing in air conditioning, vacuum-cleaning, & anti-pollution installations. Works primarily for industries, banks & hotels. Reply to—Michael Philaire, Mng. Dir., Firec S.A., 35 Boulevard Louis Schmidt, 1040 Brussels. Tel.: 34.96.48.

Fabricated textile products

2394098 — AUSTRALIA — Fluorescent or iridescent canvas suitable for marine-use distress flags and markers. Required in red or red-orange in 48 in. width. Purchaser will buy 10,000 to 20,000 yds. per yr. if c.i.f. price is below $1.30 per yd. Firm successfully supplies large Queensland boating market with many complementary marine lines. Reply to — Mr. Arthur Wilson, Belle 77 Importing Co., 42 Gordon St., Hawthorne, Brisbane, Queensland 4171. Tel. 992424.

Household furniture

●25100—FRANCE—Large Paris department store desires to make contact with U.S. manufacturer of Early American/Colonial furniture for special promotion and later purchases. Catalogs and price lists, in French if available, to M. Gerard Lardenois, Administrator, Samaritaine, 19 Rue Monnaie, 75001 Paris, France. Tel. 508-3333.

Pulp mills, products

2611216 — ECUADOR — 40 tons, wood pulp paste, bleached, standard thickness, for use in mfr. of sanitary napkins; roll size: diameter 35.1 in., width 10 in.; est. cost $12,800 c.i.f. Guayaquil. Quote f.o.b. or c.i.f. Guayaquil against l/c or s/d. Price quotations by cable required. Prado, who annually plans to order similar quantity of pulp wood paste for use by his new equip. which is underway from Italy, is well-regarded mfr. Provides sales throughout Ecuador. Cable—Guillermo Prado, P.O. Box 4341, Guayaquil. Cable Guillermoprado Guaranda 337 Guayaquil; Tel. 5-17300.

Converted paper, paperboard products

2649598 — JAPAN — K-liner for corrugated paperboard in rolls, 200 grams/sq. meter (0.65 ounces/sq.ft.) 1.4 meter wide (4.6 ft). Initial purchase of 50 tons mo. C.i.f. price Yokohama or Kobe desired as well as price for 200 tons for near future. If K-liner is unavailable, C-liner acceptable. Also any other kinds of paper for wrapping, stationery, etc. Cable—Mr. Akira Nishito, Mng. Dir., Fukuoka Package Co., Ltd., 1 Nanotsu 1-Chome, Chuo-Ku Fukuok a City 810. Tel.: (092) 751-6036.

Paperboard containers, boxes

2654373 — JAPAN — Paper trays for fresh meat for retail pacakaging, more than four million pieces per mo. to be used by 41 or more super market stores. Sizes include 173mm x 83mm x 16mm (deep), 175mm x 95mm x 20 mm, 120mm x 205mm x 20mm. Firm is majority owned subsidiary of Daiei Co., largest supermarket chain in Japan with 134 directly owned & affiliated stores, is acting as meat purchasing, distribution center for 41 Daiei Stores located in eastern half of Japan. Daiei currently using trays made of PVC or foamed styrene for fresh meat, fish, vegetables, but supply is becoming tight, consequently price rising sharply. Although responsible for procurement of trays for fresh meat to be used by 41 stores (about 4-5 million pieces mo.) is capable of purchasing all trays needed by all 134 stores for meat, fish, vegetables if stable supply at reasonable prices assured. Hopes to be contacted by interested U.S. suppliers soonest. Reply to, call or telex—Mr. Kunihiro Takarabe, Asst. mgr. Business Dept., Daiei Meat Co., Ltd., 3-7-18 Mita, Minato-Ku, Tokyo 108. Tel: 03-455-4161; Telex 2424453.

Industrial chemicals

●28190 — SRI LANKA (CEYLON) — Tender for the supply of 500 mt of bleaching powder. Tender reference number COM/TEN/74/9. Closing date March 22. Eastern Paper Mills Corp., P.O. Box 1367, 356 Union Place, Colombo 2, Sri Lanka (Ceylon). Specifications available from the Embassy of Sri Lanka, 2148 Wyoming Ave., N.W., Washington, D.C. 20008, (202-438-4025).

Drugs

●28300 — ZAMBIA — Supply of drugs and chemicals. Tender MF/MED/375, with bid deadline of February 22. Secretary, Republic of Zambia Central Supply and Tender Board, P.O. Box 1009, Lusaka, Zambia. When received, specifications available in English to firms domiciled in the U.S. from Materials Division, Bureau of Domestic Commerce, Room 2130, U.S. Department of Commerce, 20230, ★(202-967-3910).

Gum, wood chemicals

●28600 — INDIA — Hot pressed napthalene for manufacturing phthalic anhydride. Amount not specified, value $100,000. Specifications: melting point, superior to 78 degrees C; water content, less than 0.20 percent; iron content, preferably below five parts per million, maximum 20 parts per million; sodium content preferably below five parts per million, maximum 20 parts per million; matter insoluble in benzene, less than 0.15 percent; matter non volatile at 160 degrees C, less than 0.20 percent; residue (ASH), less than 0.10 percent; distillation interval, 95 percent shall distill within five degrees between 224 degrees centigrade to 219 degrees C. No tender document number or bid deadline specified. Bids should specify quotation c.i.f. Calcutta, and delivery date, and should be submitted as soon as possible to B. N. Catterjee, Industrial Engineer Burgapur Chemicals Ltd., 6-A Little Russell St., Calcutta, 70016. Any further information relative to tender document or specifications should be obtained from the above address.

●28600 — SRI LANKA (CEYLON) — Creosote, 200,000 gallons, for the treatment of timber. Interested bidders should submit bids to the Chairman, State Timber Corp. Tuajira Lane, Colombo, Sri Lanka. Tender Document Number COM/TEN/74/5. Bid deadline March 26. Documents with specifications and general conditions of tender may be obtained from The Chemicals and Rubber Program, Materials Division, Rm. 2130, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-3464).

Chemical products

2892113 — GERMANY — Explosives (surface & underground mining) permissibles; 2892117 — ammonium nitrate, fuel sensitized, except slurry; 2892118 — other industrial explosives, including black blasting powder, shaped charges, liquid oxygen explosives, nitroglycerin sold as such, etc.; 2892133 — propellants, including smokeless & black powder, blasting accessories; 2892141 — safety fuse, detonators; 2892143 — blasting caps, electric, delay; 2892145 — blasting caps, electric, except delay. Prefers business connections with U.S. firms represented in EEC. Helmut Schroeder, Authorized Executive, Ave-GmbH, Allgemeine Veririebsges. F. Auslandssprengmittel, 415 Krefeld, Moerser Str. 149, Postfach 208. Tel. (02151) 25159.

2892147 — 2892151 — 2892161 — 2892171 — GERMANY — Blasting caps, except electric; blasting fuse; other blasting accessories (squibs, igniters, boosters), other explosives, jet starters, fuse & explosive assemblies, etc. Subject firm has annual sales volume of DM 15 million. Prefers business connections with U.S. firms represented in EEC. Write—Helmut Schroeder, Authorized Executive, Ave-GmbH, Allgemeine Veririebsges. F. Auslandssprengmittel, 415 Krefeld, Moerser Str. 149, Postfach 208. Tel: (02151) 25159.

Petroleum refining

2911853 — THAILAND — Pure napthenic base lube oil in 200 liter drum containers. Monthly requirement: 3,000 drums. Requests c.i.f. Bangkok prices. Reply to—Muk Rotrakarn Mng. Dir., Siam Lubricant Industry Co., Ltd., 147-147/1 Nakornsawan Road, Bangkok. Telex: Siampan; Tel.: 82111-5.

Paving, roofing materials

2951051 — MALAYSIA — Initial total sales aprox. 2000 tons/yr. asphalt, bituminous road paving materials. Perina is quasi-government subsid. Sarawak Economic Development Corp., which responsible for road building in Sarawak State. Annual sales potential considerable over next few years. Reply to—Leslie Marjoribanks, Mng. Dir., 6C. Perina Sdn. Bhd., Electra House, 2nd Floor, P.O. Box 432, Kuching, Sarawak. Cable Perinaco; Tel.: Kuching 20065.

Flat glass

32111 — EL SALVADOR — Sheet win-

dow glass, of 'A' quality, packed in wooden boxes containing about 2,000 sq. ft. of window glass ea. box: (a) boxes containing 2 millimeters thick glass: 60 boxes containing 16 by 20 in. sheets; 10 boxes containing 8 by 10 in. sheets: 20 boxes containing 14 by 30 in. sheets; (b) boxes containing 3 millimeter-thick glass: 2 boxes containing 30 by 20 in. sheets; one box containing 40 by 24 in. sheets; one box containing 40 by 30 in. sheets; (c) boxes containing 4 millimeter-thick glass: 2 boxes containing 40 by 30 in. sheets; 2 boxes containing 48 by 42 in. sheets, & 2 boxes containing 60 by 40 in. sheets. Above will be for direct purchase order valued at about $3,000. Total annual purchases will amount to about $40,000. Buyer requests c.i.f. (Salvadoran ports) quotations, & indication of delivery dates. Mr. Saravia is importer & retailer, specializing in glass which he sells to construction contractors. Ricardo R. Saravia, mgr. Ricardo R. Saravia, Calle San Jorge 46, Urbanizacion Isidor Menendez, San Salvador. Tel: 25-0268.

Structural clay products

3251231 — AUSTRALIA — Glazed ceramic floor & wall facing tiles. Est. annual sales potential approx. $60,000. Buyer has significant lighting retail outlet in Darwin. Close involvement in real estate gives good opportunity for building supply sales. Requires information on f.o.b. prices & availability. Reply to—Mr. Steve N. Albanis, Darwin Lighting Centre, P.O. Box 5437, Darwin, Northern Territory 5794.

Steel mill products

33100 — AUSTRIA — Various quantities of steel pipe. Mr. Erik Haundrup, Erbidan Import-Export, Kaasgrabengasse 35-37, A-1190, Vienna, Austria. Specifications available at above address.

●33100—IRAN—229 pcs. equal to 60,500 kgs. iron strap. Tender No. 2337/52; bid deadline February 24. Iranian Economic Mission, 5530 Wisconsin Avenue, N.W., Washington, D.C. 20015. Specifications available from Iron and Steel Program, BDC, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-2438).

●33100—KOREA—Steel materials for hull of trawler. Tender No. ADB/L-73215-PII. Office of Supply, Government of Republic of Korea. 48-26 Inui-Dong, Chongro-Ku, Seoul 110, Korea. Additional details available at above address.

●33100—QATAR—100,000 tons reinforcing steel bars, offers made to the Embassy; CIF or C & F Doha, Qatar. For further information contact Mr. N. T. Awad, 2721 Connecticut Avenue, N.W., Washington, D.C. 20008, ★(202-332-2300).

●33100—THAILAND—Various quantities and sizes of equal angle steel and steel plate. Tender No. ADB-MEA-039; bid deadline February 28, 1974. Purchases and Stores Department, Metropolitan Electricity Authority, 121 Chakpetch Road, Bangkok, Thailand. Tender documents available at above address at a cost of $6.50 per set.

Primary smelting, refining of nonferrous metals

3331213 — ITALY — Up to 1,200/1,500 m.t. annually of refined primary copper in cathodes, wire bars, ingots. Estimated value: $3.5 million. Buyer needs reply as soon as possible. Quote c.i.f. Genoa against letter of credit. Airmail or telex —Giuseppe Lora, Mngr., Lora-Impianti E Costruzioni Elettriche E Industriali SNC, Via Assarotti 13/15, 16122 Genoa. Cable: Lora Genova. Telex: Lora & 27060-PP-TX Genova or 27066-PP-TX Genova. Tel: (010) 891072 & (010) 884888.

Rolling, drawing, extruding of nonferrous metals

●33500—CYPRUS—Manufacture, supply, testing, packing, and delivery of a) 36,400 yds. underground cables, 600/1000 volt, belted type, w/copper conductors; b) 51,000 yds. underground cables, 6350/11000 volt, screened type, w/copper conductors; c) 24,000 yds. 16 sq. mm. w/core cables w/copper conductors. Tender No. 110/1974; bid deadline February 26. The Electricity Authority of Cyprus, POB 4506, Nicosia, Cyprus. Tender documents available at above address at a cost of $57.00 for set of four documents.

●33500—IRAN—600 KWS. 600/1000 volt, 4 core, lead sheathed cable. Tender No. IB/PC/12.73; bid deadline March 16, 1974. Tehran Regional Electric Co., Procurement Department, Jaleh Sq., Tehran, Iran. Specifications available at above address.

●33500—THAILAND—1,000 Pcs ground rod, copper bonded steel ⅝" overall diameter, 9' long. Minimum thickness of copper 0.015". 1,000 pcs. clamp for ground rod of ⅝" diameter and copper wire range No. 8. AWG-No 2 AWG. w/square head bolt. Tender No. MEA-PSD-305, bid deadline March 12. Purchases and Stores Department, Metropolitan Electricity Authority, 121 Chakpetch St., Bangkok 2, Thailand. Tender documents available from Copper, Lead and Zinc Program, BDC, U.S. Department of Commerce, Washington, D.C., 20230, ★(202-967-2438).

●33500—THAILAND—Various quantities and sizes of sheathed cable. Tender No. TOT,B-7; bid deadline March 18, 1974. Telephone Organization of Thailand, Ploenchit Road, Bangkok, Thailand. Full particulars available at above address at a cost of $100.00 per set. Bid forms and conditions available from Copper, Lead & Zinc Program, BDC, U.S. Department of Commerce, Washington, D.C., 20230, ★(202-967-2438).

Fabricated metal products

3496951 — MEXICO — Barbed and twisted steel wire to be used for fencing of cattle land, 34 to 36 kgs./roll, two strand, two barb. Already has 5 importation permits from Mexican Government; (2000 rolls per permit; total amount needed: 10,000 rolls) & said permits expire 30 days from date of issuance. Prompt response will be appreciated. Reply to—Jesus Ayala Rodriguez—Gen. Mgr., Jesus Ayala Rodriguez, American Sur 576, Monterrey, N.L. Tel: 42-88-10.

Construction, mining, materials handling machinery, equipment

●35300—BOLIVIA—Bids invited for the following equipment: Drilling equipment; air compressors; water pumps; tank trucks; Jeep-type vehicles; four-wheel-drive vehicles; Six ½ ton trucks; geophysical prospecting equipment, including electromagnetic equipment, magnetometers and induced polarization; camping equipment, including sleeping bags, tents, etc.; office machines, including typewriters, electronic and manual calculators, copiers, etc. precision field equipment, including compasses, theodolites, altimeters, etc.; laboratory equipment, including mineragraphic microscopes, geochemical laboratory material and chemical reagents; and radio transmitters and portable receivers. Tender number not specified; bid deadline February 24. However, bids from outside Bolivia will be received until 6:00 P.M. February 28. "Geobol" Servicio Geologico de Bolivia—is the Bolivian Government's Geology Service. Its address is: Casilla P.O. Box 2729, La Paz, Bolivia. Material will be used to conduct an inventory of the mineral resources of Bolivia's small mines. Financing of U.S. $750,000 has been obtained from the International Development Association of the World Bank for this inventory. Specifications can be obtained from above address (Attn: Departamento Administrativo) upon payment of $500 Bolivian ($25.00 U.S.) for each of the items cited above.

●35300 — GHANA — The Canadian Government is providing Ghana with a $6 million loan and grant ($3 million in each category) for a major water supply project in the northern part of the country. The grant portion is completely tied, but one-third of the loan (one million dollars) is untied. Necessary equipment includes two rotary drill rigs, "down-the-hole" hammer, tools, spares, 2500 hand pumps, rods and equipment for a main workhouse and pump assembly plant. W. L. Wardrop & Associates, Ltd., 300-77 Main St., Winnipeg, Manitoba, Canada, has been awarded contract to prepare specifications covering project. Interested firms should write Mr. L. R. McGuinnis at above address.

●35300—INDIA—Design, supply, erection and commissioning of pelletizing plant. Tender number PA/TVS/2-6/73; bid deadline June 15. Administrative Officer, National Mineral Dev. Corp., Mukarramjahi Road, Post Box No. 195, behind Housing Board. Hyderabad 500 001. Tender fee of $69.00 payable in advance and not refundable. Tender documents available from India Supply Mission, 2536 Massachusetts Avenue, N.W., Washington, D.C., 20008.

●35300—ISRAEL—Israel Ports Authority is urgently looking for manufacturers of automatic lifting frames (spreaders) for containers of 20 and 40 feet to operate with container handling cranes in ports. For more details interested companies should contact Mr. S. Achiiuv, Head of Cargo Handling Equipment and Systems Division, Israel Ports Authority. Cable address: Rashuinam Tel Aviv.

●35300 — TAIWAN — Diesel pile hammers, one set each 3 ton class, 5 ton class, 10 ton class, and single-acting steam/air type (5 ton class) required by: Central Trust of China, Procurement Department, Taipei, Taiwan. Bid number GF3-622803 with deadline of February 21.

●35300 — TANZANIA — Total of 280 diesel driven rotary pump units with pumping capacity ranging from 12½ to 50 cubic meters per hour, complete with accessories, spare parts and maintenance tools. Tender No. 5/74 (MAJI); bid dead-

line February 22. Secretary, Central Tender Board, P.O. Box 49, Dar Es Salaam. When received, specifications available on a short term loan basis to firms domiciled in the U.S. from the Transportation and Capital Equipment Division, Room 2806, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-5593).

●35300—UPPER VOLTA—One and possibly two, mobile drilling rigs for use in water exploitation in Northern Upper Volta. Equipment will be used for exploration and drilling of 150 water points as part of IBRD drought-related loan. Value of tender is estimated at between $215,000-$350,000. Second tender requests technical assistance for operation of equipment and has value of approximately $150,000. Tender number not specified; bid deadline 5:00 P.M. on February 28. Bids must be submitted in French. Direction de L'Hydraulique et de L'Equipement Rural, Ouagadougou, Haute Volta, Attn: Idrissa Yaya. Tender documents and equipment specifications may be purchased at above address or by telex (Banadevel 5225 UV) for 4,000 CFA—checks/money order can be cabled to Banque Nationale de Developpement Account number 405/094 HER. Specifications available on a short term loan basis to firms domiciled in the U.S. from the Transportation and Capital Equipment Division, Room 2806. U.S. Department of Commerce, Washington, D.C., 20230. ★(202-967-5593).

Special industry machinery

●35500—ALGERIA—Supply, install, and start-up of synthetic leather factory at Akbou, Eastern Algeria. Correspondence in French required. Tender number not specified; bid deadline April 15. Societe Nationale des Industries des Peaux et Cuirs (Sonipec), 100, Rue de Tripoli, Hussein-Dey, Algiers; Cables: Tal. Alger; Telex: 52832. Tender documents available for 200 DA (Approximately $51.95) from Direction des Etudes at above address. Postmark acceptable for meeting deadline.

●35500 — AUSTRALIA — Sydney-based firm desires contacts with U.S. companies who specialize in the design and manufacture of machinery or process plants which they wish to market in Australia. Interests not confined to one industry but would be in areas where new processes, technology or equipment could be introduced that could result in a new industry being developed or an existing one expanded. Company states they can bring together Australian partners, local finance, complete engineering and construction ability for medium and large scale projects and coordinate all phases of new company formation. Interested U.S. firms should contact Tower Research and Development Corporation Limited, A. J. Anderson, Chairman, 15 Young St., Sydney, NSW 2000. Cable "Tower," telephone Sydney 241-2516.

●35500—TAIWAN—One complete 20,000 KL refrigerated LPG storage facility to be located at Petrochemical Service Center of Kaohsiung Harbor. Award will be made on whole basis. Tender number GF4-623456; bid deadline February 25. Central Trust of China, Procurement Department. Specifications available on short term loan basis to firms domiciled in the U.S. from the Transportation and Capital Equipment Division, Room 2806, U. S. Department of Commerce, Washington, D. C., 20230, ★(202-967-5593).

35593 — POLAND — The Foreign Trade Enterprise POLIMEX-CEKOP wishes to hear from U.S. firms concerning the design, construction and equipping on a turnkey basis of a 30,000 m.t. annual capacity plant to produce a variety of plastic food packaging items. Plant should include machines for production of chemical foils, and eight-color printing presses. POLIMEX will use information from firms expressing interest to develop detailed specifications. Interested firms may write in English to the U.S. Trade Development Center, c/o American Embassy Warsaw, Department of State, Washington, D.C. 20521, or direct to Stefan Hilkner, Department Manager, Food Processing Plants Import Dept., POLIMEX-CEKOP Foreign Trade Enterprise, Czackiego 7/9, 00-043 Warsaw, Poland;Telex: 814271. Firms may also contact D. Piggot, Trade Development Assistance Division, Bureau of East-West Trade, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-3352).

3559398 — GUYANA — Equip. for producing styrofoam & raw material for same (small scale). 3569114 — Equip. for fabricating polyurethane bags, including perforated bags (small scale). Rahaman's Transport Services, 27 Water & America St., Georgetown. Tel.: 65033.

General industrial machinery

●35600 — SINGAPORE — Two complete units of bag filter house and suction fan together with cleaning device for collection of fine granite dust containing 30 percent quartz. Minimum size of abrasive dust particles to be controlled is 0.5 to 5 microns. Power supply for equipment must be 440 volts, 50 cycles, 3 phase alternating current. Average local air temperature (daytime) is 84°F. Altitude of quarry to be treated as at sea level. Minimum designed conveying velocity for systems should be 3 500 f.p.m. Air volumetric capacities required—system 1: 20,699 air C. F. M.; system 2: 21,217 air C. F. M. Total static pressure drop for ductwork—system 1: 4.34 inches water gauge; system 2: 4.08 inches water gauge. Interested U.S. companies should forward illustrative pamphlets with technical details of equipment to Senior Mechanical Engineer, PWD Kallang, Singapore 14. Also quote consolidated price per unit of equipment c.i.f. Singapore and expected delivery period.

Office, computing, accounting machines

●35700—NEPAL—Supply of two hundred units of typewriters required for the Administrative Management Department, in Roman and devenagari script in the sizes 11, 15, 20, 27, and 36 inches. Invited by the Administrative Management Department/HMG, Harthar Bhawan, Pulchowk, Nepal. Catalogs, terms and conditions from suppliers should be sent to Emil P. Ericksen, American Embassy, Kathmandu, Nepal. Bid deadline not indicated.

Electric transmission, distribution equipment

●36100—COLOMBIA—Supply of equipment for auxiliary services of the Guatape Hydroelectric Project, second stage. Equipment desired includes: one 2,000 KVA transformer, one section switch, one panelboard, and low voltage distribution switchboards. Tender number G-205; bid deadline April 2. Partial IBRD financing. Tender specifications available from Empresas Publicas de Medellin, Seccion de Importaciones, Edificio Miguel de Aguinaga, Oficina 607, Medellin, for 600 pesos (approximately $24.00) for first copy and 300 pesos for each additional copy. Tenderer is the public utility branch of the municipal government.

●36100—INDIA—Supply of 33 KV underground cable 3 core 240 sq. mm. (40 KM) required for 220 KV transmission and distribution project. Tender number IDA/DESU/4; bid deadline March 21. Financing through IDA credit number 377 in power transmission project 111. Specifications available through General Manager (E), Delhi Electric Supply Undertaking, Post Box No. 589, Rajghat Power House, Rajghat, New Delhi-1, for 100 Rupees (approximately $13.75).

Electrical industrial apparatus

●36200—INDIA—Submerged arc welder. Tender number 107/18/244/13.6.73; bid deadline March 12. Directorate General, Supplies and Disposals, Jeevantara Building, Parliament Street, New Delhi 110001. Tender copies are available from India Supply Mission. 2536 Massachusetts Avenue, N.W., Washington, D.C., 20008, for $2.00 per copy.

Communications equipment

●36600 — MAURITANIA — The Office of Post and Telecommunications announces extension of the bid deadline for desired telecommunications equipment to March 15. All other factors remain the same (See Commerce Today, Jan. 7, p. 62).

●36600 — IRAQ — The bid deadline on Tender No. 27A for telegraph switching equipment has been extended to Feb. 26. Conditions are unchanged for this national telex project for the Ministry of Communications. (See Commerce Today, Jan. 7 p. 62).

●36600—TAIWAN—Supply of subscriber telephone protectors complete with fuses and carbon arrester, 100,000 pieces. Tender No. GS 2-623581, bid deadline February 26. Estimated total value over $100,000. Tender documents available from Central Trust of China, Procurement Department, Taipei, Taiwan.

Engineering, laboratory, scientific research instruments

●38100—ALGERIA—Supply and install assorted scientific equipment for Constantine University hospital center. Correspondence in French required. Tender No. 73-21, bid deadline March 9. Tender documents available from Ministere de l'Enseignement Superieur et de la Recherche Scientifique, 1, Rue, Bachir Attar, Place du 1er Mai, Algiers, Algeria; cable: Minensup Alga: Telex: 52720. When tenders are received at Commerce Dept. from Algeria they will be available from Science and Electronics Division, Room 1006A, U.S. Department of Commerce Washington, D.C., 20230, ★(202-967-2939).

Wholesalers

50930 — KOREA — Scrap waste materials; brass valve scrap. Requires 50 m.t. monthly. Firm wishes to import above item on continuing basis for own use. Interested U.S. firms contact Mr. Lee,

informing prices, delivery terms, etc. Reply to—Mr. Lee Chun-Bok, Pres. Dae Yung Commercial Co., Ltd., CPO Box 2082, Seoul 100. Cable Leeyung, Seoul; telex Leeyung 2368 S; Tel: 24-1761.

Wholesalers

50930—TAIWAN—Scrap copper wire, 2MM—8MM DIA. Please offer sample and specification. Per 25-35 tons to be packed in one container. Above goods are in urgent need. Please reply thru telex. Mr. W. M. Chang, Gen. Mgr., Chang's Enterprise Ltd., P.O. Box 30-54, Taipei. Cable Exchange; Telex 11152 JTCO (CHANG'S).

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Glass, glassware

3229112 — 34694 — 34695 — 9950024 — 36350 — 28420 — MALTA — All kinds of housewares and home decoration products especially oven to tableware (handglass) and kitchen utensils, preferably made of aluminum, cast iron or enamel. All kinds of household vacuum cleaners; including parts and attachments. Specialty cleaners and sanitation products and polishing preparations, related products, especially shoe polish and cleaners in spray form. Requests sole agency and distributorship agreement to cover Malta and Libya. C.i.f. Malta prices, catalogs requested. Payment by cad until commencement of business, afterwards by mutual agreement. Reply to Mrs. G. Conti, Dir., or Mr. A. Conti, Dir., Glaselan Trading Co. Ltd., 360 Prince of Wales Rd., Sliems, Malta. Cable Glaselan-Malta; phone 33023, 33500.

Structural clay products

32530 — 3292511 — 3292737 — 3292741 — UNITED ARAB EMIRATES — Competitively priced ceramic floor and wall tiles; asphalt floor tiles, and ceiling panels. Firm is just entering building materials line and opening new branch in Dubai. Ranya Trading & Contracting Co., P.O. Box 602, Abu Dhabi.

Toys and amusements, sporting and athletic goods

9950014 — 9950018 — 9950020 — 9950024 39490 — 39410 — 9950012 — 9950032 — — SWITZERLAND — Novelties in toys, games, sporting goods, hobby and craft items, collectors' items, gift articles, gadgets, suitable for resale in discount and dept. stores, gift shops, boutiques, etc. Firm is large international trading company with sales and retail network all over Europe and overseas. Has unique experience in duty free areas and markets. Annual sales exceeds $35 million. Excellent reputation. Employs 940. Firm Excellent reputation. Employs 940. Firm plans to send personnel to visit trade fairs in U.S. Reply to Mr. R. Burri, Mgr., Weitnauer Trading Ltd., Petersgasse 36, 4001 Basel, Switzerland.

Special Action

The following representation notice is deemed to rate the special attention of American manufacturers and suppliers by the U. S. Commercial Officers overseas.

2282413 — 2282443 — 2282415 — 2282445 — INDIA — Nylon filament yarn for weaving; Polyester filament yarn for weaving; Nylon filament yarn for knitting; Polyester filament yarn for knitting; estimated value above items, $280,000. Import of above material is canalized through public sector State Trading Corporation (STC) with which SBI has excellent contacts. Firm sells acrylic, nylon and polyester fiber/yarn on behalf of several foreign companies. Quote c.i.f. Bombay including 3 percent agent's commission, against L/C. Reply to—Ved Aggarwal, Chief Executive, Shree Bharat International (SBI), 169 Golf Links, New Delhi-3. Cable Woolsynd; tel 72937.

Four UNDP Contracts Open To U.S. Bidders

The United Nations Development Program recently announced that four contract opportunities for projects in developing countries are available for international bidding.

Contracts under the auspices of the UNDP are awarded on an international competitive basis, and interested U.S. firms should contact the executing agency for the specific project as soon as possible. Firms should include a current resume in their initial contact with an executing agency.

There is no additional data concerning these contracts available from the Department of Commerce.

Projects preceded by an asterisk had not been approved at the time of this announcement, and are subject to modification or cancellation. Maximum allowable cost of projects is listed in parentheses.

* **BRAZIL—Agriculture, forestry and fisheries.** BRA/73/020—National system of agricultural information and documentation. Subcontract requirement: perforation and treatment ($30,000). Estimated starting date: early 1974. Executing agency: Food and Agriculture Organization of the United Nations (FAO); Via della Terme de Caracalla 00100, Rome.

* **MALAYSIA—Industry.** MAL/71/536—Metal industries Development Center of Mayalsia, Kuala Lumpur. Subcontract requirement: preparation of technical project report ($45,000). Due to begin in 1974. Executing agency: United Nations Industrial Development Organization (UNIDO): Felderhaus, Rathauplatz 2, A-1010 Vienna.

YUGOSLAVIA—Industry. YUG/73/007—Assistance development processing equipment. Subcontract requirement: related to petrochemical industry include laboratory and pilot designs for countercurrent columns and evaporation and processing manufacturing plants ($80,000). Estimated commencement June 1. Executing agency: UNIDO.

REGIONAL—Science and Technology. RAS/73/022—Technical support for regional offshore prospecting in East Asia (Phase II) Subcontract Requirement: Printing and maps ($5,000 yearly for five years). Estimated commencement: September. Executing agency: United Nations Economic Commission for Asia and the Far East (ECAFE)—Sala Santitham Raydamen Ave., Bangkok.

Visiting Buyers And Officials

SWEDEN—John H. Larsson, Medata Aktiebolag, Fack 56, S-100 51 Stockholm, and Engineer John Larsson AB, Third Floor, Rasundavagen 72, S-171 37 Solna, Sweden, (tel. 730 17 32), is seeking licensing arrangements with American manufacturers of chip screens and cleaning processes for pulp mills using the dry-process. He was scheduled to attend the Jan. 14-16 North American TAPPI Congress in Miami, Florida, and spend the next six weeks traveling in this country. WTDR 1/68, updated 6/72. Contact through Commerce's Miami District Office.

Hungary's State Trading Units Listed In Commerce Report

The Bureau of International Commerce has published the following Trade List: *State Trading Organizations—Hungary.*

Copies may be obtained for $3 by firms domiciled in the United States from the Export Information Division, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230, and from Department of Commerce District and Regional Offices.

Fiji Requests American Department Store Branch

The Government of Fiji has indicated an interest in having an American department store locate a branch in Suva, the capital of the Fiji Islands. Interested department store managements should contact the American Embassy in Suva, Fiji Islands, for additional information.

Speedier WTDR Service Now Has $15 Per Report Price

The World Traders Data Report Service, which provides U.S. exporters with prompt telegraphic business data on foreign firms, is revising its price schedule. Effective Feb. 1, the price per report was increased to $15. Since switching from air mail to telegraphic reporting in January 1973, the WTDR service had provided more than 35,000 reports on individual firms from Foreign Service Posts overseas at $5 apiece.

Although the WTDR is not actually a credit report, the Foreign Credit Insurance Association accepts the WTDR as one of the reports used in determining the creditworthiness of overseas buyers.

Firms may obtain request forms for WTDRs from any Commerce Department Business Service District Office or from the Export Information Division, BIC, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230.

Future Construction Abroad

GERMANY — Nordwestdeutsche Kraftwerke AG (NWK) is planning the construction of **three 1,300 MW. nuclear powerplants,** one will be located at Emden, another near Cuxhaven, and a third in the neighborhood of Buettel/St. Margarethen on the Schleswig-Holstein North Sea coast. Total estimated cost is $1.2 billion. NWK does not expect construction of the first plant to get under way until some time in 1975. The second and third plants will probably be built some time in the eighties. No details are available about financing. Applications for government approval have already been filed. NWK is prepared to consider U.S. bids on turnkey installations, and U.S. firms should contact: Nordwestdeutsche Kraftwerke AG, Dr. Ulrich Segatz, Schoene Aussicht 14, 2 Hamburg.

ARGENTINA—The joint Argentine-Paraguayan Technical Commission (CMT) for the **Yacyreta Apipe Hydroelectric Project** has announced that tender documents are available for the preparation of a detailed engineering study for the multiple utilization of the Parana River in the area of Yacyreta-Apipe. Bidding will be open to consulting engineering firms (or consortiums), and all bidders must be associated with one or more Argentine and Paraguayan consulting firms. Tender documents and further details are available from: CMT, Av. R.A. Pena 531, 5th Fl., Buenos Aires, at a cost of 2500 Arg. pesos (approx. $250) for the first set and half of that for any additional sets. Bid deadline is March 25, at 4 p.m.

TANZANIA — The State Mining Corp. has announced that it will issue bids early in 1974 with a turn-key project for the construction of **Tanzania's second cement plant,** located near Tanga, Tanzania's northernmost seaport. At this stage in the planning, the initial capacity of the plan is to be rated at 250,000 tons a year and will be fully-integrated through to a bagging unit. A State Mining Corp. official stated that his company hopes to select a contractor early enough in the year that construction can start before the end of 1974. Plans call for the plant to start production in 1977. The plant must be designed to permit a doubling of capacity at a later date. Interested U.S. companies can write to: R. H. Kimambo, General Manager, State Mining Corp., P.O. Box 4958, Dar-es-Salaam.

HONDURAS—There will be significant activity in Honduras in 1974 in the field of **hospital construction and equipping,** and these developments will be an excellent opportunity for U.S. hospital equipment, construction, and consulting firms. A report from the American Embassy in Tegucigalpa giving these developments and a listing of all hospitals in Honduras is available from the U.S. Department of Commerce. Trade Opportunities Program, Rm. 1322, Washington, D.C. 20230.

CANADA — A new building project, **University Place,** near the core of downtown Toronto, has been presented to Toronto City Council for official approval. The development will occupy a three-acre site just off University Avenue at Dundas St. and will consist of seven buildings, both commercial and residential, varying in height from eight to fourteen stories. The feasibility of the residential aspect is still under study. Shopping lanes and public squares are planned. Construction should begin this spring or, at the latest, this summer. Further information may be obtained from Albert Warson, Warson Assoc., 548 Merton St., Toronto 7, Ontario, (416-483-4943).

CHILE — Petroquimica Chilena S.A., government-owned firm, has completed feasibility studies to construct a **hydrofluoric acid plant,** located in Talcahuano. Imported goods and services for the project are estimated at $1 million, for which the firm hopes to obtain a loan. Construction will begin during the first half of 1976 and end in the second half of 1977. The plant has a designed capacity of 1,500 m.t. per year. Interested firms should contact: Petroquimica Chilena S.A., Teatinos 20, Of. 43, Casilla 284-V, Santiago.

DOMINICAN REPUBLIC — A group of local businessmen will soon announce plans for the construction in Santo Domingo of what they claim will be the **largest shopping center in the Caribbean.** El Duarte Shopping Center will be built on a 254,000 sq. meter site near the Herrera Airport on the western border of the city; actual construction will cover 80,000 sq. meters and there would be parking space for 4,000 cars. Interested firms may contact R. Antonio Martinez, Vice President, Antilla Motors Co., C. Por A., 30 De Marzo 144, Santo Domingo. Tel.: 682-3605 or 682-5355.

JAMAICA — Plans for a **deepwater pier for the Caymans** have been approved and the total cost of the project is estimated at $1.2 million. Construction is expected to start in late 1974 or early 1975. The Public Works Department is undertaking the $1.2 million resurfacing of roads mainly in the capital, Georgetown. An additional 28 miles of main roads are to be constructed from West Bay to Bodden Town, passing through Georgetown. Work on the product is expected to start in early 1974. Plans for the development of the Cayman Islands Airport are being made and tenders for the job are to be invited soon. Interested U.S. firms should contact the Government Information Officer, West Wind Building, Georgetown, Grand Cayman for detailed information.

COLOMBIA — The Bogota City Government has been authorized by the Central Government to initiate a feasibility study for the construction of a **large municipal slaughterhouse.** The initial studies will cost about $81,000. The study and slaughterhouse will be financed by loans from FONADE (National Development Project Fund). Studies were due to begin in December and results should be known early this year. When completed, the slaughterhouse will be the nation's largest and most efficient, although exact price, size and location have not been determined. Interested U.S. firms should contact Dr. Fabuo Puyo-Vasco, Empresa Distrital de Servicios Publicos, Calle 13 No. 31-85 Bogota.

NETHERLANDS—The Royal Dutch Marines, the Technical University in Delft, and Rijkwaterstaat are interested in having an **underwater testing laboratory** built in the North Sea off the Coast of the Netherlands. This laboratory would be used for scientific research, for the training of divers, and for the testing of materials, instruments and working methods. The Waterloopkundig Laboratorium (Laboratory for Water Research), an independent but Government-sponsored research laboratory in Delft, is trying to raise funds from Dutch industry. If they find the funds, they can be expected to take a leading role in the project. Contact Mr. van Doorn, Waterloopkundig Laboratorium, Rotterdamseweg 185, Delft.

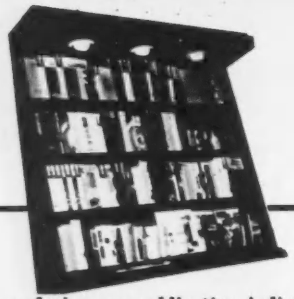
IRAN — Dr. Mohammad Reza Kusha, Managing Director of Sherkat Sahami Sanayeh Shir-E-Iran, has announced that plans have been approved to build **six new complete dairies** with 100 tons-per-day capacity in major population centers. In addition to milk, each of these dairies must provide substantial production of yoghurt. Tenders will be invited from firms known to Dr. Kusha's company. Interested U.S. firms can write directly to Dr. Kusha at the Ministry of Agriculture and Natural Resources, Tehran. Interested U.S. firms should not appoint agents in Iran.

HONDURAS — The Ministry of Education will publish soon invitations to bid for the supply of **materials and equipment for biology, chemistry, physics laboratories; home economics laboratories; commercial classes; mechanical drawing; electricity and radio shops; carpentry and metal shops.** The total value is $650,-000. Contact for further information is Henry Reynolds, Ministry of Education, Sixth floor, Edificio Seguro Social, Tegucigalpa, D.C. Purchases to be financed by AID.

BOLIVIA — Hoteles Orientales S.R.L., Calle Velasco 280, Casilla (P.O. Box) 980, Santa Cruz, invites Bolivian architects to submit sketches for design of a new hotel. Sketches were received from Bolivian architects until Dec. 30, 1973; prize for the best sketch will be awarded Jan. 10. The 400-bed hotel will include swimming pool, courts for sporting activities, and parking facilities; required investment will be $2.8 million. This project could offer a substantial opportunity to U.S. suppliers of hotel supplies and equipment. Communicate directly with Hoteles Orientales S.R.L.

KOREA—Kim Yong-Seoung, Executive Director, Gold Star Cable Co., Ltd., 3-106, 1-Ka, Do-dong, Choong-ku, Seoul, plans to construct a $112.5 million new **factory to specialize in power transmission cable** at Unsan, South of Ulsan, between 1976 and 1980. The firm hopes to obtain a $25 million Eximbank loan. Interested U.S. suppliers of wire and cable production equipment as well as possible joint venture partners should contact Mr. Yong-Seoung.

HONG KONG—The Hong Kong Government will approve the application of Textile Alliance Ltd. to build a **50-ton daily capacity polyester plant** in Castle Peak Area of Hong Kong's New Territories. C. C. Lee, Managing Director, Textile Alliance Ltd., 5/F, Star House, Kowloon, Hong Kong, states that he would welcome contact from U.S. engineers, consultants and construction companies.



New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to Room 6880, U.S. Department of Commerce, Washington, D.C. 20230, or to any of its district offices.

DOMESTIC AND INTERNATIONAL BUSINESS ADMIN.

BUREAU OF DOMESTIC BUSINESS

Containers and packaging. Vol. 26, No. 3. Annual subscription $2 (add 50¢ for foreign mailing).

Printing and publishing. Vol. 14, Nos. 3 and 4. Annual subscription $2 (add 50¢ for foreign mailing). Single copy 50¢.

Pulp, paper, and board. Vol. 29, No. 3. Annual subscription $2 (add 50¢ for foreign mailing). Single copy 50¢.

SOCIAL AND ECONOMIC STATISTICS ADMIN.

BUREAU OF ECONOMIC ANALYSIS

Business conditions digest. Series ES1, No. 73-12. December 1973. Annual subscription $45.80 (add $11.45 for foreign mailing). Single copy $3.70. This monthly report brings together many of the economic time series found most useful by business analysts and forecasters.

Defense indicators. Series ES4, No. 73-12. December 1973. Annual subscription $11 (add $2.75 for foreign mailing). Single copy 95¢. This monthly report brings together the principal time series on defense activity which influence short-term changes in the National economy. These include series on obligations, contracts, orders, shipments, inventories, expenditures, employment, and earnings. Most are monthly but a few quarterly series are included.

BUREAU OF THE CENSUS

Congressional district data book: 93d Congress—a Statistical Abstract supplement. 568pp., hard cover. At GPO Bookstores, $7.75; by domestic mail, $8.30. This volume presents a variety of data from the 1970 census and recent election statistics for districts of the 93d Congress, elected in 1972. It also presents maps for each State showing counties, congressional districts, and selected places.

Mini-guide to the 1972 Economic Censuses. 42pp. $1. Designed to provide information on the 1972 Economic Censuses program for users and potential users of Census Bureau data and for the interested public. For persons using economic census data regularly, this publication offers a concise reference guide to the 1972 Economic Censuses—particularly the data collected for the individual censuses and the publication program.

Agriculture

Cotton ginned prior to December 1, by States: 1973, 1972, 1971, and 1970 (A10:73-8). 2pp. 10¢.

Report on cotton ginnings prior to December 1 for the crop of 1973, by counties (A20:73-4). 6pp. 10¢.

Construction and Housing

New one-family homes sold and for sale: October 1973 (C25-73-10). 12pp. Annual subscription $3. Single copy (monthly) 10¢. Single copy (annual) $2.

Price index of new one-family houses sold: third quarter 1973 (C27-73-3). 4pp. Annual subscription $2.50. Single copy 50¢.

Housing authorized by building permits and public contracts: October 1973 (C40-73-10). 98pp. Annual subscription $22.05 (add $5.55 for foreign mailing). Single copy $1.45.

Distribution and Services

Weekly retail sales of stores in the United States for week ending December 22 (CB-73-371). 2pp 15¢.

Monthly retail trade—sales and accounts receivable: October 1973 (BR-73-10). 34pp. 40¢.

Governments

State tax collections in 1973 (GF73, No. 1). 44pp. 70¢. This report shows the most detailed information that can now be published on the fiscal 1973 yields of the many State tax sources, together with final detailed figures for fiscal 1972.

Quarterly summary of State and local tax revenue: July-September 1973 (GT73, No. 3).

Industry

Woven fabric production—weekly average: seasonal adjustment supplement: 1968 to 1972 (Series: M22A, supplement). 10pp. Annual subscription $1.50. Single copy 15¢.

Steel shipping barrels, drums, and pails: summary for 1972 (Series: M34K(72)-13). 34pp. Annual subscription $1.50. Single copys 15¢.

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General contractors—industrial buildings and warehouses, SIC 1541 (CC72(P)-4). 4pp. 35¢.

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Money income in 1972 of families and persons in the United States (Series: P-60, No. 90). 170pp. $3.05.

SCIENCE AND TECHNOLOGY

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Building performance in the 1972 Managua earthquake (Tech. Note 807). 156pp. $1.60. This report documents the observations of damages by a National Bureau of Standards/National Academy of Engineering team of engineers who performed field investigations in Managua, Nicaragua.

Methods of measurement for semiconductor materials, process control, and devices—quarterly report: April 1 to June 30, 1973 (Tech. Note 806). 78pp. $1. Significant NBS accomplishments during the reporting period are discussed.

Voluntary Product Standard

Structural glued laminated timber (PS 56-73). 12pp. 45¢. This Voluntary Product Standard covers requirements for the dimensions, grade combinations, lumber for laminating, appearance, grades, adhesive, and laminating of structural glued laminated timber as well as inspection and test procedures, marking, and the certification by a qualified inspection and testing agency. Definitions of the trade terms used, and guides for ordering and information on inspection practices are provided in the appendixes.

Special Publications

Publications of the National Bureau of Standards: 1972 catalog (Spec. Publ. 305, supplement 4). 450pp. $3.75. Lists NBS publications issued during 1972. It includes an abstract of each publication key-word and author indexes; and general information and instructions about NBS publications.

Standards on noise measurements, rating schemes, and definitions—a compilation: 1973 edition (Spec. Publ. 386). 92pp. $1.10. A compilation of material assembled from the various standards, industrial and trade organizations, or technical and scientific societies concerned with acoustics. There has been no attempt to review or evaluate the standards, but rather just to list those that are available.

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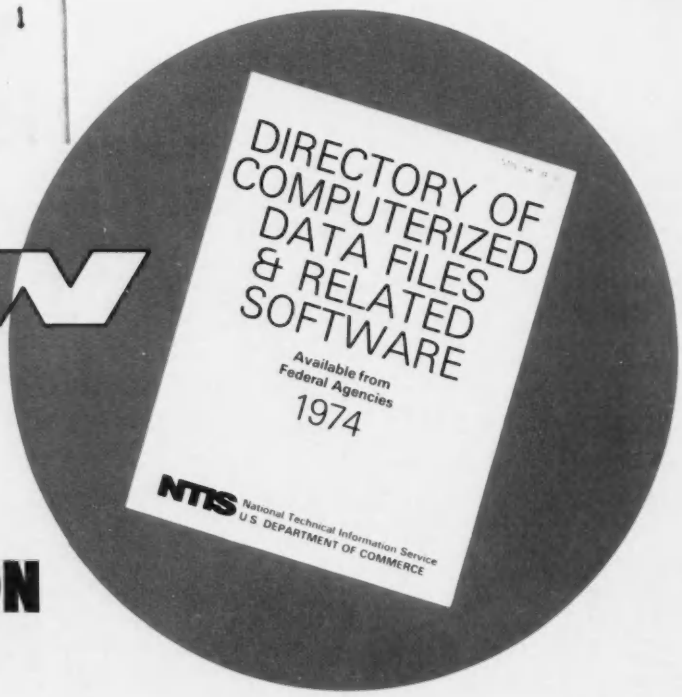
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